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Supreme Court of the United States

PHELPS DODGE CORPORATION, et al.,

Petitioners,

v.

THE UNITED STATES, et al.,

Respondents.

SALT RIVER VALLEY WATER USERS' ASSOCIATION, et al.,

Petitioners,

v.

THE UNITED STATES, et al.,

Respondents.

On Petition For Writ Of Certiorari To The Supreme Court Of The State Of Arizona

APPENDIX TO PETITIONS FOR WRITS OF CERTIORARI

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TABLE OF CONTENTS

Appendix A: Opinion of the Supreme Court of the State of Arizona filed November 19, 1999 ..... App. A1

Appendix B: Orders Concerning Petitions for Interlocutory Review of the Supreme Court of the State of Arizona filed December 11, 1990 ..... App. B1

Appendix C: Special Procedural Order Providing for Interlocutory Appeals and Certifications of the Supreme Court of the State of Arizona dated September 26, 1989..... App. C1

Appendix D: Order of the Superior Court of the State of Arizona, In and For the County of Maricopa, dated September 9, 1988, with Minute Entry dated September 9, 1988..... App. D1

Appendix E: Minute Entry of the Superior Court of the State of Arizona, In and For the County of Maricopa, dated January 19, 1988 ..... App. E1

Appendix F: Minute Entry of the Superior Court of the State of Arizona, In and For the County of Maricopa, dated November 20, 1987 ..... App. F1

Appendix G: Arizona's Principal Aquifers Map ..... App. G

Appendix H: Federal Lands In The Fifty States Map ..... App. H

Appendix I: Arizona Surface Management Responsibility Map ..... App. I

Appendix J: Arizona's Principal Aquifers and Land Ownership Map ..... App. J

APPENDIX A

IN THE SUPREME COURT OF THE
STATE OF ARIZONA
En Banc

IN RE THE GENERAL ADJUDICATION OF ALL RIGHTS TO USE WATER IN THE GILA RIVER SYSTEM AND SOURCE	)	Supreme Court Nos. WC-90-0001-IR through WC-90-0007-IR (Consolidated) & WC-79-0001 through WC-79-0004 (Consolidated)
	)	Maricopa County Nos. W-1, W-2, W-3, W-4 (Consolidated)
	)	**OPINION**
	)	(Filed Nov. 19, 1999)

Interlocutory Review of September 30 [sic], 1988 Order
Superior Court in Maricopa County
The Honorable Stanley Z. Goodfarb, Judge (retired)

Issue 4: Do federal reserved water rights extend to groundwater (underground water) that is not subject to prior appropriation under Arizona law?

Issue 5: Are federal reserved rights holders entitled to greater protection from groundwater pumping than are water users who hold only state law rights?

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FIDEL, Judge

¶ 1 In the third of a series of interlocutory opinions in this comprehensive general stream adjudication, we address two questions: Do federal reserved water rights extend to groundwater (underground water) that is not subject to prior appropriation under Arizona law? Are federal reserved rights holders entitled to greater protection from groundwater pumping than are water users who hold only state law rights? We answer both questions in the affirmative.

I. PROCEDURAL HISTORY

¶ 2 The purpose of a comprehensive general stream adjudication is to determine "the nature, extent and relative priority of the water rights" of all who use the water of a "river system and source." Ariz. Rev. Stat. Ann. ("A.R.S.") §§ 45-251(2), 252(A); *see also* [sic] U.S.C. § 666 (1982). The underlying adjudication is a consolidated effort to achieve that purpose with respect to waters within the Upper Salt, Verde, Upper Gila, Lower Gila, Agua Fria, Upper Santa Cruz, and San Pedro watersheds. The Little Colorado watershed is the subject of a similar adjudication.

¶ 3 The pertinent waters within a "river system and source" are (1) those subject to prior appropriation and (2) those subject to claims based on federal law. A.R.S. § 45-251(4). A substantial task is to determine the extent to which each category extends to hydrologically connected underground water pumped from wells. *In re the General Adjudication of All Rights to Use Water in the Gila River Sys. ("Gila River II")*, 175 Ariz. 382, 386, 857 P.2d 1236, 1240 (1993).

¶ 4 A detailed procedural history of this case may be found in *Gila River II*, 175 Ariz. at 384-86, 857 P.2d at 1238-40, and *In the Matter of the Rights to the Use of the Gila River ("Gila River I")*, 171 Ariz. 230, 232-33, 830 P.2d 442, 444-45 (1992).[1] It suffices here to state that in 1988 the

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[1] For additional procedural history, see *Arizona v. San Carlos Apache Tribe*, 463 U.S. 545, 558-60 (1983), and *United States v. Superior Court*, 144 Ariz. 265, 270-71, 697 P.2d 658, 663-64 (1985), which jointly uphold the jurisdiction of the Arizona

trial court issued rulings on a number of questions concerning the relationship of groundwater and surface water. The trial court's ruling generated multiple petitions for interlocutory review, leading this court to accept six issues for review.[2] We resolved issue 1 in *Gila River I*, upholding procedures that the trial court established to make this massive case more manageable. 171 Ariz. at 243-44, 830 P.2d at 455-56. We resolved issue 2 in part in *Gila River II*; there we affirmed the conclusion that water constituting "subflow" is the only underground water subject to appropriation under Arizona law, but disapproved the standard that the trial court adopted to distinguish subflow from non-appropriable "percolating

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courts to include federal parties in a comprehensive general stream adjudication.

[2] We defined the six issues as follows:

1. Do the procedures for filing and service of pleadings adopted by the trial court in its Pre-trial Order Number 1 comport with due process under the United States and Arizona Constitutions?
2. Did the trial court err in adopting its 50%/90 day test for determining whether underground water is "appropriable" under A.R.S. § 45-141?
3. What is the appropriate standard to be applied in determining the amount of water reserved for federal lands?
4. Is non-appropriable groundwater subject to federal reserved rights?
5. Do federal reserved rights holders enjoy greater protection from groundwater pumping than holders of state law rights?
6. Must claims of conflicting water use or interference with water rights be resolved as part of the general adjudication?

groundwater," remanding the standard to be reshaped after further hearings. 175 Ariz. at 392-93, 857 P.2d at 1246-47.

¶ 5 After issuing *Gila River II*, we interrupted consideration of the six issues and accepted special action jurisdiction to resolve a challenge to the constitutionality of Arizona statutes enacted in 1995 that attempted comprehensive procedural and substantive changes to Arizona's surface water law. *San Carlos Apache Tribe v. Super. Ct.*, 193 Ariz. 195, 972 P.2d 179 (1999) (holding retroactive changes unconstitutional in substantial part). We then took jurisdiction of another special action to determine whether the trial court may consult *ex parte* with the Department of Water Resources in its statutory role as technical adviser to the court. *See San Carlos Apache Tribe v. Bolton*, 194 Ariz. 68, 977 P.2d 790 (1999) (rejecting petition to disqualify trial court and director of Department). We now return to the original six issues and resolve issues 4 and 5.

II. ON GROUNDWATER, SURFACE WATER, SUBFLOW, AND THE RESERVED WATER RIGHTS DOCTRINE

¶ 6 The trial court held that federal "reserved rights" apply not only to surface water and subflow, appropriable categories under Arizona law, but also to non-appropriable groundwater. The court also held that federal reserved rights holders are entitled to protection from any off-reservation groundwater pumping that "significantly diminishes" the amount of water available to satisfy the purpose of the reservation. These rulings attribute more expansive water rights to federal claimants

than to those asserting claims pursuant only to state law. To explain this aspect of the trial court's decision and to set the context for our discussion, we review some history and terms.

A. Arizona's Bifurcated System of Water Rights

¶ 7 In *Gila River II*, we summarized the bifurcation of Arizona law respecting surface water and groundwater:

> [R]ights associated with water found in lakes, ponds, and flowing streams – surface water – have been governed by the doctrine of prior appropriation. . . . On the other hand, underground water has been governed by the traditional common law notion that water percolating generally through the soil belongs to the overlying landowner, as limited by the doctrine of reasonable use.[3]

175 Ariz. at 386, 857 P.2d at 1240.

¶ 8 Arizona does not entirely confine the doctrine of prior appropriation to surface waters. Our courts have extended prior appropriation to a category known as "subflow," historically defined as "those waters which

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[3] The doctrine of reasonable use permits an overlying landowner to capture as much groundwater as can reasonably be used upon the overlying land and relieves the landowner from liability for a resulting diminution of another landowner's water supply. *See Bristor v. Cheatham*, 75 Ariz. 227, 237-38, 255 P.2d 173, 180 (1953); *see generally* R. Beck, 1 WATERS & WATER RIGHTS §§ 4.01 at 66, 4.05(c) at 72 (1991 & Supp. 1998).

slowly find their way through the sand and gravel constituting the bed of the stream, or the lands under or immediately adjacent to the stream, and are themselves a part of the surface stream." *Id.* at 387, 857 P.2d at 1241 *(quoting Maricopa County Mun. Water Conserv. Dist. No. 1 v. Southwest Cotton Co.*, 39 Ariz. 65, 96, 4 P.2d 369, 380 (1931) *("Southwest Cotton "))*. The notion of "subflow" is significant in Arizona law, for it serves to mark a zone where water pumped from a well so appreciably diminishes the surface flow of a stream that it should be governed by the same law that governs the stream. *Id.* at 96-97, 4 P.2d at 380-81.

¶ 9 Yet the notion of subflow is an artifice, as we acknowledged in *Gila River II,* that rests on a hydrological misconception. 175 Ariz. at 389, 857 P.2d at 1243. To pump well water from "lands under or immediately adjacent to a stream" is not, we now know, the only pumping that may significantly diminish surface flow. The hydrological connection of groundwater and surface water is sometimes such that groundwater pumped more distantly within an aquifer may have comparable effect. Leshy and Belanger[4] explain:

> When water is pumped from an aquifer by means of a well, it creates what is known as a "cone of depression." This is caused by the groundwater in the aquifer moving toward the well. If the material in the aquifer has a high transmissivity value, the cone of depression will

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[4] In *Gila River II,* we referred those seeking a detailed history of the evolution of Arizona water law to John D. Leshy & James Belanger, ARIZONA LAW WHERE GROUND AND SURFACE WATER MEET, 20 Ariz. St. L. J. 657 (1988).

> be wide and shallow. If, on the other hand, the aquifer does not easily transmit water, the cone of depression will be steep and narrow. If water is pumped continuously from the well, the cone of depression will become larger. If the water table is close enough to the earth's surface to allow this cone to cut into a surface stream, water from the stream would directly infiltrate into the ground, following the slope of the cone of depression until it reached the well. Even if the cone did not intersect the stream directly, it could affect the amount of water in the stream by intercepting water that would otherwise migrate toward the stream. This would cause less water to be available in the stream bed. If water were removed by pumping from a well and none were reintroduced, the water table would decline. If several wells were pumping, there would be a more rapid decline. Any time the rate of water withdrawn from an aquifer exceeds the rate of recharge, the water table will decline.

Leshy & Belanger, 20 Ariz. St. L.J. at 663-64.

¶ 10 Conforming their law to hydrological reality, most prior appropriation jurisdictions by now have abandoned the bifurcated treatment of ground and surface waters and undertaken unitary management of water supplies. *Id.* at 659-60. In *Gila River II*, however, we declined to do so, explaining:

> [I]t is too late to change or overrule *[Southwest Cotton]* . . . . More than six decades have passed since *Southwest Cotton* was decided. The Arizona legislature has erected statutory frameworks for regulating surface water and groundwater

> based on *Southwest Cotton*. Arizona's agricultural, industrial, mining, and urban interests have accommodated themselves to those frameworks. *Southwest Cotton* has been part of the constant backdrop for vast investments, the founding and growth of towns and cities, and the lives of our people.

Gila River II, 175 Ariz. at 389, 857 P.2d at 1243. Limiting ourselves to "interpreting *Southwest Cotton*, not refining, revising, correcting, or improving it," we "reaffirm[ed] *Southwest Cotton's* narrow concept of subflow" and directed the trial court to devise a subflow standard on remand that "turns on whether the well is pumping water that is more closely associated with the stream than with the surrounding alluvium." *Id.* at 389-93, 857 P.2d at 1243-47.

B. *All Water Appropriable and All Water Subject to Claims Based Upon Federal Law*

¶ 11 A subflow standard, once it has been established, will serve to identify well-users who pump water subject to prior appropriation. But this adjudication is not limited to water subject to prior appropriation; it extends also to water subject to claims based on federal law. An adjudication such as this cannot achieve its comprehensive purpose without quantifying and prioritizing federal, as well as state law, claims.

> Since there is not enough water to meet everyone's demands, a determination of priorities and a quantification of the water rights accompanying those priorities must be made. Obviously, such a task can be accomplished only in a

> single proceeding in which all substantial claimants are before the court so that all claims may be examined, priorities determined, and allocations made.

See United States v. Super. Ct., 144 Ariz. 265, 270, 897 P.2d 658, 663 (1985).

¶ 12 Approximately two-thirds of the land in Arizona is federally held, much of it in trust for Indian tribes. *See* ARIZONA STATISTICAL ABSTRACT 173-177 (1993 ed.). The McCarran Amendment permits us to include federal claimants in the adjudication, for it permits the United States to participate in state court proceedings that comprehensively adjudicate "rights to the use of water of a river system or other source." 43 U.S.C. § 666(a). In conformity with the McCarran Amendment, our general adjudication statute, A.R.S. § 45-252(A), authorizes determination of "the nature, extent and relative priority of the water rights of all persons in the river system and source." And A.R.S. § 45-251(4), as we have indicated, defines "river system and source" to include not only appropriable water, but "all water subject to claims based upon federal law."[5]

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[5] The City of Phoenix argues that our general adjudication statute permits us to adjudicate federal water claims only to the extent that they are claims to water that is appropriable under state law and, thus, that we lack jurisdiction to consider whether federal reserved rights extend to non-appropriable groundwater. We summarily reject this argument because it is contrary to the plain, conjunctive definitional language of A.R.S. § 45-251(4) and because such an interpretation would deprive this adjudication of the comprehensive quality that our general adjudication statute was intended to provide.

¶ 13 The rub is that, in order to adjudicate and quantify water rights based upon federal law, the Arizona courts must afford federal claimants the benefit, when state and federal law conflict, of federal substantive law. *See Arizona v. San Carlos Apache Tribe*, 463 U.S. 545, 571 (1983) (state courts must apply federal substantive law to measure federal rights in state adjudication); *accord United States v. Super. Ct.*, 144 Ariz. at 276-77, 697 P.2d at 669-70. And the particular issues that we now consider arise pursuant to a doctrine of federal substantive law known variously as the "reserved water rights," the "reserved rights," or the "implied reservation" doctrine.

¶ 14 The reserved water rights doctrine provides:

> [W]hen the Federal Government withdraws its land from the public domain and reserves it for a federal purpose, the Government, by implication, reserves appurtenant water then unappropriated to the extent needed to accomplish the purpose of the reservation. In so doing the United States acquires a reserved right in unappropriated water which vests on the date of the reservation and is superior to the rights of future appropriators.

Cappaert v. United States, 426 U.S. 128, 138 (1976). The doctrine applies not only to Indian reservations, but to other federal enclaves, such as national parks, forests, monuments, military bases, and wildlife preserves. *Id.* at 138-39; *Arizona v. California*, 373 U.S. 546, 601 (1963).

III. DO FEDERAL RESERVED RIGHTS EXTEND TO GROUNDWATER?

¶ 15 Moving from background to foreground, we consider the trial court's conclusion that the reserved water rights of federal claimants – when measured by federal substantive law – are not constrained by Arizona's bifurcated treatment of surface water and groundwater. According to the trial court, federal law establishes a reserved right to groundwater, if and to the extent that groundwater may be necessary to accomplish the purpose of a federal reservation.

¶ 16 The state law parties respond that the Supreme Court has never applied reserved rights to groundwater and that this court, if not obliged to do so, should decline to apply a federal doctrine so disjunctive to established doctrines of our state. In support of this argument, the state law parties cite the example of *In re All Rights to Use Water in the Big Horn River System*, 753 P.2d 76 (Wyo. 1988). In that general stream adjudication, the Supreme Court of Wyoming recognized that "[t]he logic which supports a reservation of surface water to fulfill the purpose of the reservation also supports reservation of groundwater." *Id.* at 99. Yet the court declined to find a reserved right to groundwater, stating in explanation only that it had been cited no previous decision which did so. *Id.* at 99-100.[6]

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[6] Some recorded decisions have, in fact, addressed the question, though their analysis was relatively terse. *See Tweedy v. Texas Co.*, 286 F. Supp. 383, 385 (D. Mont. 1986) ("the same implications" that support a reservation of surface waters in arid lands "would apply to underground waters as well"); *Gila*

¶ 17 We can appreciate the hesitation of the *Big Horn* court to break new ground, but we do not find its reasoning persuasive. That no previous court has come to grips with an issue does not relieve a present court, fairly confronted with the issue, of the obligation to do so. Moreover, as the *Big Horn* court acknowledged, we do not write on a blank slate.

¶ 18 The reserved rights doctrine derives from *Winters v. United States*, 207 U.S. 564 (1908). There, the United States sued to enjoin upstream settlers in Montana from constructing or maintaining dams and reservoirs that diverted Milk River waters from flowing to the Fort Belknap Indian Reservation. *Id.* at 565. Although the reservation was created in 1888, before the upstream settlers arrived, the settlers claimed priority under Montana's law of prior appropriation, asserting that their diversion and beneficial use preceded all but a minor appropriation of waters for reservation use. *Id.* at 568-69. The Supreme Court rejected the settlers' argument. Observing that "[t]he power of the government to reserve the waters and exempt them from appropriation under the state laws is not denied, and could not be," the Court concluded that, in setting aside land for a reservation, the government had implicitly reserved sufficient water to accomplish the reservation's purpose. *Id.* at 577.

¶ 19 In *Cappaert*, the Court applied the reserved rights doctrine in a case that turned on the hydrological connection of surface water and groundwater. There, upon

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River Pima-Maricopa Indian Community v. United States, 9 Cl. Ct. 660, 699 (1986) ("Ground water under the Gila River reservation impliedly was reserved for the Indians.").

application by the United States, a federal district court had issued, and the Ninth Circuit had affirmed, an injunction restricting pumping from wells drilled on private ranch land bordering the Devil's Hole National Monument. The wells drew water from the same underground source as a pool within the monument where lived an endangered breed of fish. One purpose of the monument was to preserve the pool and its rare fish. *Id.* at 141. Upon evidence that pumping from the wells had lowered the pool's surface to a level that inhibited the spawning of the fish, the Supreme Court affirmed the district court's injunction, which restricted the ranch's pumping to the extent necessary to maintain the pool at a water level that sufficed to support the fish. *Id.*

¶ 20 Although the Ninth Circuit, in its *Cappaert* opinion, expressly determined that the reserved rights doctrine extends to groundwater,[7] the Supreme Court found it unnecessary to reach that question, explaining that the water in the pool was surface water. *Cappaert*, 426 U.S. at 142. Yet upon evidence that "federal water rights were being depleted because . . . the '[g]roundwater and surface water are physically interrelated as integral parts of the hydrologic cycle,' " the Court held that "the United States can protect its water from subsequent diversion, whether the diversion is of surface or groundwater." *Id.* at 142-43 (*quoting* C. Corker, *Groundwater Law, Management and Administration*, National Water Commission Legal Study No. 6, p. xxiv (1971)).

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[7] *See United States v. Cappaert*, 508 F.2d 313, 317 (9th Cir. 1974).

¶ 21 In *Cappaert*, as before, the Supreme Court left the question of a reserved right to groundwater unresolved. The Court's decisions, however, provide guideposts toward our holding that such a right exists.

¶ 22 We find one guidepost in *Winters*, where the Court stressed that the arid lands of the Fort Belknap Reservation could not be made "inhabitable and capable of growing crops" without an implicit reservation of Milk River waters. *Winters*, 207 U.S. at 569. We find a similar guidepost in *Arizona v. California*, where the Court declared it "impossible to believe" that those who created the Colorado River Indian Reservation "were unaware that most of the lands were of the desert kind – hot, scorching sands – and that water from the [Colorado River and its tributaries] would be essential to the life of the Indian people and to the animals they hunted and the crops they raised." *Arizona v. California*, 373 U.S. at 599. The reservations considered in those cases depended for their water on perennial streams. But some reservations lack perennial streams and depend for present or future survival substantially or entirely upon pumping of underground water. We find it no more thinkable in the latter circumstance than in the former that the United States reserved land for habitation without reserving the water necessary to sustain life.

¶ 23 We find another guidepost to decision in the Supreme Court's association of surface and groundwater in *Cappaert* as "integral parts of the hydrologic cycle." *Cappaert*, 426 U.S. at 142. True, the Court identified the waters to be protected as the surface waters of the pool in Devil's Hole. But in contrast to prior cases where the use to be enjoined was an upstream diversion of surface

waters, in *Cappaert* the use to be enjoined was a pumping of groundwater from beneath adjoining land. The Court declined to differentiate one means of diversion from another. Instead, the Court held that "the United States can protect its water from subsequent diversion, whether the diversion is of surface or groundwater." *Id.* at 143. While *Cappaert* bears most directly upon our discussion of issue 5 in Part IV of this opinion, we find it helpful to our resolution of the present issue as well. That federal reserved rights law declines to differentiate surface and groundwater – that it recognizes them as integral parts of a hydrologic cycle – when addressing the diversion of protected waters suggests that federal reserved rights law would similarly decline to differentiate surface and groundwater when identifying the water to be protected.

¶ 24 In summary, the cases we have cited lead us to conclude that if the United States implicitly intended, when it established reservations, to reserve sufficient unappropriated water to meet the reservations' needs, it must have intended that reservation of water to come from whatever particular sources each reservation had at hand. The significant question for the purpose of the reserved rights doctrine is not whether the water runs above or below the ground but whether it is necessary to accomplish the purpose of the reservation.

¶ 25 The state law parties argue, however, that even if the reserved rights doctrine applies equally in principle to groundwater as to surface water, we should decline to extend the doctrine to groundwater out of deference to state water law. Where federal rights are at issue, a state court may adopt state law as the rule of decision if to do so would not frustrate or impair a federal purpose. *See*

United States v. Kimbell Foods, Inc., 440 U.S. 715, 728-29 (1979). Such is not the case here. To the contrary, the Supreme Court has defined the reserved rights doctrine as an exception to Congress's deference to state water law. *See United States v. New Mexico*, 438 U.S. 696, 714 (1978); *accord Cappaert*, 426 U.S. at 145; *see also United States v. Rio Grande Dam & Irrig. Co.*, 174 U.S. 690, 775 (1899) (state law cannot be applied to destroy the federal government's right to water on its lands).[8]

¶ 26 In *Winters*, the Supreme Court acknowledged the extensive cultivation, construction, and development that Montana settlers had undertaken in reliance upon diversions of water accomplished pursuant to state law. 207 U.S. at 569-70. Had the Court deferred to state law, the settlers would have prevailed. Instead, the Court concluded that the United States had exercised its power "to reserve the waters and exempt them from appropriation under the state laws." *Id.* at 577. In *Cappaert*, similarly, the Court acknowledged the extensive investment that the ranch land parties had made and the substantial employment generated by their wells. 426 U.S. at 133. The State Engineer, applying state law, had permitted the pumping

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[8] As evidence of the deference that the federal government traditionally accords state water law, the state law parties point to statutes such as the 1877 Desert Lands Act, in which Congress effected "a severance of all waters upon the public domain, not theretofore appropriated, from the land itself," and reserved the waters "for the use of the public under the laws of the states and territories." *California Oregon Power Co. v. Beaver Portland Cement Co.*, 295 U.S. 142, 158, 162 (1935). The Supreme Court has held, however, "that the Desert Land Act does not apply to water rights on federally reserved land." *Cappaert*, 426 U.S. at 144 (*citing FPC v. Oregon*, 349 U.S. 435, 448 (1955)).

to continue, finding in part that further economic development served the public interest. *Id.* at 134-35. The Supreme Court, however, concluded that "determination of reserved water rights is not governed by state law but derives from the federal purpose of the reservation." *Id.* at 145.

¶ 27 It is apparent from the case law that we may not withhold application of the reserved rights doctrine purely out of deference to state law. Rather, we may not defer to state law where to do so would defeat federal water rights.

¶ 28 The state law parties next argue, however, that deference to state law in this case would not defeat federal water rights. Specifically, they maintain that there has never been a need to reserve groundwater in a state that provides all overlying landowners an equal right to pump as much groundwater as they can put to reasonable use upon their land.[9] *Cf. Wilson v. Omaha Indian Tribe,* 442 U.S. 653, 674 (1979) (court may borrow state law as rule of decision where under the circumstances there is no reason for beneficiaries of a federal right to have a privileged position over others).

¶ 29 This argument, however, overlooks that federal reserved water rights are by nature a preserve intended to "continue[ ] through years." *See Winters,* 207 U.S. at 577. In *Arizona v. California,* the Supreme Court affirmed that an implied reservation includes sufficient waters "to satisfy the future as well as the present needs of the Indian Reservations." *Arizona v. California,* 373 U.S. at 600.

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[9] *See supra* note 3.

The Court added that the reservation of waters applies to the "future requirements" of other types of federal reservation as well. *Id.* at 601. A theoretically equal right to pump groundwater, in contrast to a *reserved* right, would not protect a federal reservation from a total future depletion of its underlying aquifer by off-reservation pumpers. *Cf. Washington Com. Passenger State Fishing Vessel Ass'n*, 443 U.S. 658, 676 n.22 (1979) ("[I]n light of the far superior numbers, capital resources, and technology of the non-Indians, the concept of the Indians' 'equal *opportunity*' to take advantage of a scarce resource is likely in practice to mean that the Indians' 'right of taking fish' will net them virtually no catch at all.")

¶ 30 Under the "reasonable use" doctrine, Arizona has consumed far more groundwater than nature can replenish. *See* ARIZONA DEP'T WATER RESOURCES, ARIZONA WATER RESOURCES ASSESSMENT: VOL. 1, INVENTORY AND ANALYSIS 9 (1994); Philip R. Higdon & Terence W. Thompson, *The 1980 Arizona Groundwater Management Code*, 1980 Ariz. St. L.J. 621, 623. The Department of Water Resources presented evidence to the trial court in this case of streams in transition from perennial to intermittent within the San Pedro and Upper San Pedro watersheds, of others nearing an ephemeral character, and of others in geographical "retreat." *See* ARIZONA DEP'T WATER RESOURCES, GILA RIVER SYSTEM GROUNDWATER-SURFACE WATER INTERACTION STUDY 31-32 (1987). Within the Lower Gila River watershed, groundwater tables have been so lowered as to sever the connection between ground and surface water. *See* Leshy & Belanger, *supra*, at 665-66. Some Indian reservations have been entirely "dewatered" by off-reservation pumping. *See Gila River Pima-Maricopa*

Indian Community v. United States, 9 Cl. Ct. 660, 665-66 (1986) (federal inaction and lack of tribal resources have enabled off-reservation developers to pump aquifers underlying some Indian reservations dry before the tribes could exercise their opportunity to pump groundwater). We therefore cannot conclude that deference to Arizona's law – and to the opportunity it extends all landholders to pump as much groundwater as they can reasonably use – would adequately serve to protect federal rights.

¶ 31 For the foregoing reasons, we hold that the trial court correctly determined that the federal reserved water rights doctrine applies not only to surface water but to groundwater. We decide this issue in the abstract at this time as a necessary step in determining the scope of interests to be encompassed by this adjudication. We do not, however, decide that any particular federal reservation, Indian or otherwise, has a reserved right to groundwater. A reserved right to groundwater may only be found where other waters are inadequate to accomplish the purpose of a reservation. To determine the purpose of a reservation and to determine the waters necessary to accomplish that purpose are inevitably fact-intensive inquiries that must be made on a reservation-by-reservation basis. *See United States v. New Mexico*, 438 U.S. at 700.

¶ 32 Likewise, we do not now attempt to impose a standard upon the trial court for determining the purpose of any reservation. That standard, in our judgment, is not well-suited to abstract declaration and should instead emerge from testing in the solid context of the facts.[10]

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[10] Accordingly, we reject the Arizona Tribes' assertion that the Indian tribes have a reserved right to all of the waters

IV. PROTECTION AGAINST OFF-RESERVATION PUMPING

¶ 33 Next is the question what level of protection federal reserved right holders may claim against groundwater pumping that depletes their water supply. Are they limited, as the state law parties contend, to such protection as state law offers to state and private appropriators, or did the trial court correctly determine that the federal reserved right entails whatever broader protection may be necessary to maintain sufficient water to accomplish the purpose of a reservation?

¶ 34 We answer this question first with respect to federal reservations that enjoy a reserved right to surface waters. As we have indicated in previous discussion, the common law of Arizona does not permit surface appropriators to protect their source of surface waters from depletion by groundwater pumping unless that pumping draws from the relatively narrow category of "subflow." *See supra* **¶¶** 8-10. More distant pumping within a common aquifer is governed by the relatively unfettered doctrine of reasonable use. *See supra* n. 3. Thus, for example, if *Cappaert* had arisen in Arizona, the application of state law might have precluded any restriction of adjoining pumping and have permitted Devil's Hole to be pumped dry.

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appurtenant to their reservations. In determining Indian treaty rights, the Supreme Court has rejected tribal claims to an "untrammeled right" to exploit scarce natural resources. *Washington v. Washington State Com. Passenger Fishing Vessel Ass'n*, 443 U.S. 658, 683 (1979); *see also Puyallup Tribe v. Washington*, 433 U.S. 165, 175 (1977).

¶ 35 The Salt River Project points out, however, that the standard for defining subflow awaits our further review and may conceivably be set sufficiently broadly to protect the surface water rights of some or all of the federal reservations.[11] We acknowledge that possibility, but at this stage of the adjudication we must provide for the contrary possibility as well. The question before us is not whether any particular reservation is *now* entitled to broader protection than state law provides.[12] The question is rather whether a federal reservation may invoke broader protection than state law provides if state law turns out to be inadequate to preserve the waters necessary to accomplish the purpose of the reservation.[13]

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[11] The Salt River Project contends for a broader standard of subflow than do other state law parties.

[12] We thus reject as premature the argument of the Arizona Tribes that we should immediately enjoin pumping that is depleting water beneath reservations. Until federal rights are quantified, it cannot be determined which if any of the tribes are entitled to such relief.

[13] We similarly approach the state law parties' argument that federal reserved rights holders may be adequately protected against groundwater depletion by the 1980 Groundwater Management Code, which restricts application of the reasonable use doctrine and mandates conservation measures in some parts of Arizona. For example, within "active management areas," it prevents drilling of new wells or increased pumping, and requires permits for changes in use. *See* A.R.S. § 45-411 *et seq.* (West 1994 & Supp. 1998). Reservations within active management areas will receive some degree of protection from the Code; reservations outside such areas will not. Whether any particular reservation receives adequate protection of its reserved water rights through the combination of Arizona's common and statutory law remains to be determined.

¶ 36 In our view, *Cappaert* provides an explicit answer to that question. First, *Cappaert* tells us that "determination of reserved water rights is not governed by state law but derives from the federal purpose of the reservation." 426 U.S. at 145. Second, it tells us that "the United States can protect its water from subsequent diversion, whether the diversion is of surface or groundwater." *Cappaert*, 426 U.S. at 143.

¶ 37 What *Cappaert* holds with respect to the protection of surface waters, our discussion in Part III enables us to apply to the protection of groundwater as well. We have held that the federal reserved right extends to groundwater when groundwater is necessary to accomplish the purpose of a federal reservation. We similarly hold that once a federal reservation establishes a reserved right to groundwater, it may invoke federal law to protect its groundwater from subsequent diversion to the extent such protection is necessary to fulfill its reserved right.

¶ 38 We thus affirm the trial court's conclusion that federal reserved rights holders enjoy greater protection from groundwater pumping than do holders of state law rights. We do not, however, read the case law to require a zero-impact standard of protection for federal reserved rights. The Supreme Court has repeatedly acknowledged that the reserved rights doctrine "reserves only that amount of water necessary to fulfill the purpose of the reservation, no more." *Cappaert*, 426 U.S. at 141; *see also United States v. New Mexico*, 438 U.S. at 700 n.4 (1978). In *Cappaert*, the Court affirmed an injunction "appropriately tailored . . . to minimal need, curtailing pumping only to the extent necessary to preserve an adequate water level

at Devil's Hole." *Id.* at 141. If injunctions should ultimately prove necessary in this case, they shall likewise be appropriately tailored to minimal need.

¶ 39 In Part III we declined in the abstract to declare a standard for determining the purpose of a reservation. We here decline in the abstract to define how imminent a threat to a reservation's essential waters must be in order to warrant injunctive relief. The latter standard, like the former, should be grounded in the bedrock of the facts.

V. CONCLUSION

¶ 40 In *United States v. Superior Court* we wrote, "In the scheme of priorities, the claims of the federal government . . . and of the Indians rank high. While the amount of water actually used by these entities may have been negligible until recent times, the magnitude of the right to use water on these lands has been far from negligible." 144 Ariz. at 270, 697 P.2d at 663. Today we add some greater definition to the rights we then described.

¶ 41 We recognize that our determination that reserved water rights may encompass groundwater threatens to disrupt the assumptions that underlie state law uses. State law parties may question how our present holding may be squared with our decision in *Gila River II* to retain Arizona's traditional bifurcation of the law of surface and groundwater. We are no less cognizant now than when we decided *Gila River II* that Arizona's agricultural, industrial, mining, and urban interests have accommodated themselves to the framework of *Southwest Cotton*. *Gila River II*, 175 Ariz. at 389, 857 P.2d at 1243. *See supra*

¶ 10. Yet there long has loomed the need – sometimes noted, sometimes wished away – for those same interests also to accommodate themselves to the water claims of the vast federal land holdings that surround them. *See Gila River I*, 144 Ariz. at 270, 697 P.2d at 663. For state law purposes in *Gila River II*, we found reason to retain a bifurcated framework despite the hydrological misconceptions upon which it rested. But federal law does not permit us that option in deciding the extent of federal reserved rights. As Leshy and Belanger wrote in summary of *Cappaert*, "For federal law, the question is one of hydrology, not legal compartmentalization." 20 Ariz. St. L.J. at 734.

¶ 42 We do not underestimate the burden that the State of Arizona will face in accommodating federal reserved water rights within its water resource management. Nor do we underestimate the burden that the trial court will face in adjudicating the extent and relative priority of such rights. Unless there is a comprehensive settlement, however, we must heed the lesson that "the best way out is always through."[14] To solve the conflict and uncertainty that reserved rights engender, we must quantify them, for we may not ignore them. *See Colville Confederated Tribes v. Walton*, 647 F.2d 42, 48 (9th Cir. 1981); *see also* Mikel L. Moore & John B. Weldon, Jr., *General Water-Rights Adjudication in Arizona: Yesterday, Today and Tomorrow*, 27 ARIZ. L. REV. 709, 725 (1985) (the overarching purpose of the general stream adjudication statute is to provide the finality and certainty that can only be

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[14] R. Frost, *A Servant to Servants* in COMPLETE POEMS OF ROBERT FROST 83 (Holt, Rinehart and Winston ed. 1964)

achieved through a determination of all claims to water within the basin).

¶ 43 We answer issues 4 and 5 as follows: Federal reserved rights extend to groundwater to the extent groundwater is necessary to accomplish the purpose of a reservation. Holders of federal reserved rights enjoy greater protection from groundwater pumping than do holders of state law rights to the extent that greater protection may be necessary to maintain sufficient water to accomplish the purpose of a reservation.

NOEL A. FIDEL, Judge

CONCURRING:

THOMAS A. ZLAKET, Chief Justice

STANLEY G. FELDMAN, Justice

WILLIAM E. DRUKE, Chief Judge

JOHN PELANDER, Judge

Vice Chief Justice Charles E. Jones and Justices Frederick J. Martone and Ruth V. McGregor recused themselves; pursuant to Ariz. Const. art. VI, § 3, Judge Noel A. Fidel of Division One, Arizona Court of Appeals, Chief Judge William E. Druke and Judge John Pelander of Division Two, Arizona Court of Appeals, were designated to sit in their stead.

APPENDIX B

IN THE SUPREME COURT OF THE
STATE OF ARIZONA

IN RE THE GENERAL ADJUDICATION OF ALL RIGHTS TO USE WATER IN THE GILA RIVER SYSTEM AND SOURCE	) Supreme Court Nos. WC-90-0001-IR [Includes WC-90-0001-IR through WC-90-0007-IR (Consolidated) & WC-79-0001 (WC-1 through WC-4 Consolidated)]
	ORDERS CONCERNING PETITIONS FOR INTERLOCUTORY REVIEW
	(Filed Dec. 11, 1990)

Following the adoption of a Special Procedural Order Providing for Interlocutory Appeals and Certifications, petitions for review were filed in Maricopa County Superior Court Nos. W-1, W-2, W-3, and W-4 (consolidated). On June, [sic] 27, 1990, this Court consolidated the petitions. Thereafter, numerous cross-petitions, responses and an amicus brief were filed.

Having considered the many petitions, cross-petitions, responses and the amici briefs, the Court has determined to grant review on six issues. These issues were raised, in some form or another, in many of the filings, but have been reformulated by the Court. Thus, the individual questions presented in the petitions and cross-petitions will be ordered granted "to the extent they address the issues" the Court has decided to review and "denied in all other respects." As set forth in part H.1 of the Special

Procedural Order Providing for Interlocutory Appeals and Certifications, the Court's decision to deny review of any question has no precedential value.

Moreover, the Court intends to address these six issues separately. Thus, this order establishes a date for a pre-submittal conference at which matters relating to Issue Number 1 will be determined. Any party wishing to participate in the resolution of Issue Number 1 must file a notice of appearance no later than twenty days before that pre-submittal conference. At some later time, the Court will issue an order setting the date for the pre-submittal conference regarding the next issue. Parties wishing to participate in the resolution of that issue will file notices of appearance, and that issue will be briefed, argued and submitted. The process will proceed in this manner until all issues have been submitted and decided.

It is, therefore,

ORDERED: Granting review by way of interlocutory appeal of the following issues:

1. Do the procedures for filing and service of pleadings adopted by the trial court in its Pre-trial Order Number 1 comport with due process under the United States and Arizona Constitutions?

2. Did the trial court err in adopting its 50%/90 day test for determining whether underground water is "appropriable" under A.R.S. § 45-141?

3. What is the appropriate standard to be applied in determining the amount of water reserved for federal lands?

4. Is non-appropriable groundwater subject to federal reserved rights?

5. Do federal reserved rights holders enjoy greater protection from groundwater pumping than holders of state law rights?

6. Must claims of conflicting water use or interference with water rights be resolved as part of the general adjudication?

FURTHER ORDERED: Scheduling a pre-submittal conference regarding Issue Number 1 for Tuesday, February 12, 1991 at 10:00 a.m., as required by part H.3 of the Special Procedural Order for Interlocutory Appeals and Certifications.

FURTHER ORDERED: Any party to the adjudication desiring to participate in the interlocutory appeal of Issue Number 1 shall file a notice of appearance in this Court no later than twenty days prior to February 12, 1991, the date set for the pre-submittal conference, as required by part I of the Special Procedural Order for Interlocutory Appeals and Certifications. The notice of appearance shall indicate the party's position on the issue.

With respect to the individual petitions and cross-petitions for review:

WC-90-0001-IR **IN THE MATTER OF THE RIGHTS TO THE USE OF THE GILA RIVER vs. SALT RIVER PROJECT/SALT RIVER VALLEY WATER USERS' ASS'N**

ORDERED: Petition for Interlocutory Review [Petitioner Salt River Project]:

Issue Number 1 = Review is granted to the extent it addresses the Court's Issues

Numbers 2 & 5; review is denied in all other respects;

Issue Number 2 = Review is granted to the extent it addresses the Court's Issues Numbers 4 & 5; review is denied in all other respects;

Issue Number 3 = Review is granted to the extent it addresses the Court's Issue Number 3; review is denied in all other respects;

Issue Number 4 = Review is granted to the extent it addresses the Court's Issue Number 3; review is denied in all other respects;

Issue Number 5 = Review is denied.

FURTHER ORDERED: Petition for Interlocutory Review [Joinder] [Petitioner Church of Jesus Christ of Latter Day Saints]:

Review is granted and denied to the same extent that the petitions of City of Glendale, Roosevelt Water Conservation District, Arizona Public Service Company, Magma Copper Company, Farmers Investment Company, Cyprus Minerals Company, Apache Powder Company, City of Phoenix, Salt River Project Agricultural Improvement and Power District and the Salt River Valley Users' Association are granted and denied.

FURTHER ORDERED: Cross-Petition of United States for Interlocutory Review [Cross-Petitioner Department of Justice]:

Review is granted to the extent it addresses the Court's Issue Number 3; review is denied in all other respects.

FURTHER ORDERED: Petition for Interlocutory Review [Joinder] [Vanosdell Farms]:

Review is granted and denied to the same extent that the petition of the Salt River Project Agricultural Improvement and Power District and the Salt River Valley Water Users' Association is granted and denied.

FURTHER ORDERED: Petition for Interlocutory Review [Joinder] [Petitioners Gila Valley Irrigation District and Franklin Irrigation District]:

With respect to the issues in which it expressed "particular interest":

Issue Number 1 = Review is granted to the extent it addresses the Court's Issue Number 2; review is denied in all other respects;

Issue Number 2 = Review is granted to the extent it addresses the Court's Issue Number 3; review is denied in all other respects;

Issue Number 3 = Review is granted to the extent it addresses the Court's Issue Number 3; review is denied in all other respects;

Issue Number 4 = Review is denied.

FURTHER ORDERED: Joinder in APS' Response to Petitions for an Order

Allowing an Interlocutory Appeal and Cross-Petition [Joint Respondent Central Arizona Irrigation and Drainage District, Maricopa-Stanfield Irrigation District and New Magma Irrigation & Drainage District]:

Review is granted and denied to the same extent as the petitions of Arizona Public Service Co., Magma Copper Co., Farmers Investment Co., Roosevelt Water Conservation District and the City of Glendale are granted and denied.

FURTHER ORDERED: Cross-Petition and Response to Petitions for Interlocutory Review [Respondent Claimants Town of Wickenburg, Town of Gilbert, Cortaro-Marana Irrigation District, Cortaro Water Users' Association, Valencia Water Company, Bella Vista Water Company, Inc., and Bella Vista Ranches Limited Partnership]:

Issue A = Review is granted to the extent it addresses the Court's Issues Numbers 2, 3 & 4; review is denied in all other respects;

Issue B = Review is granted to the extent it addresses the Court's Issue Number 1; review is denied in all other respects.

WC-90-0002-IR **IN THE MATTER OF THE RIGHTS TO THE USE OF THE GILA RIVER vs. BUCKEYE IRRIGATION CO. & BUCKEYE WTR CONSERVATION & DRAIN.**

ORDERED: Petition of Buckeye Irrigation Company and Buckeye Water Conservation & Drainage District to Review Portions of Superior Court Order of September 9, 1988:

Issue Number 1 = Review is granted to the extent it addresses the Court's Issue Number 2; review is denied in all other respects;

Issue Number 2 = Review is granted to the extent it addresses the Court's Issue Number 4; review is denied in all other respects;

Issue Number 3 = Review is granted to the extent it addresses the Court's Issue Number 5; review is denied in all other respects;

Issue Number 4 = Review is granted to the extent it addresses the Court's Issue Number 3; review is denied in all other respects;

Issue Number 5 = Review is granted to the extent it addresses the Court's Issue Number 3; review is denied in all other respects;

Issue Number 6 = Review is denied.

FURTHER ORDERED: Cross-Petition of United States for Interlocutory Review [Cross-Petitioner Department of Justice]:

Review is granted to the extent it addresses the Court's Issue Number 3; review is denied in all other respects.

WC-90-0003-IR **IN THE MATTER OF THE RIGHTS TO THE USE OF THE GILA RIVER vs. CITY OF PHOENIX**

ORDERED: Petition for Interlocutory Review [Petitioner City of Phoenix]:

Issue Number 1 = Review is granted to the extent it addresses the Court's Issue Number 2; review is denied in all other respects;

Issue Number 2 = Review is denied;

Issue Number 3 = Review is granted to the extent it addresses the Court's Issue Number 3; review is denied in all other respects.

FURTHER ORDERED: Petition for Interlocutory Review [Joinder] [Petitioner Church of Jesus Christ of Latter Day Saints]:

Review is granted and denied to the same extent that the petitions of City of Glendale, Roosevelt Water Conservation District, Arizona Public Service Company, Magma Copper Company, Farmers Investment Company, Cyprus Minerals Company, Apache Powder Company, City of Phoenix, Salt River Project Agricultural Improvement and Power District and the Salt River Valley Users' Association are granted and denied.

FURTHER ORDERED: Cross-Petition of United States for Interlocutory Review [Cross-Petitioner Department of Justice]:

Review is granted to the extent it addresses the Court's Issue Number 3; review is denied in all other respects.

FURTHER ORDERED: Petition for Interlocutory Review [Joinder] [Petitioners Gila Valley Irrigation District and Franklin Irrigation District]:

With respect to the issues in which it expressed "particular interest":

Issue Number 1 = Review is granted to the extent it addresses the Court's Issue Number 2; review is denied in all other respects;

Issue Number 2 = Review is granted to the extent it addresses the Court's Issue Number 3; review is denied in all other respects;

Issue Number 3 = Review is granted to the extent it addresses the Court's Issue Number 3; review is denied in all other respects;

Issue Number 4 = Review is denied.

WC-90-0004-IR **IN THE MATTER OF THE RIGHTS TO THE USE OF THE GILA RIVER vs. ARIZONA PUBLIC SVC/MAGMA COPPER CO/FARMERS INVESTMENT CO**

ORDERED: Petition for an Order Allowing an Interlocutory Appeal and

Request for a Briefing Schedule [Petitioners Arizona Public Service Co/ Magma Copper Company/Farmers Investment Company]:

Issue Number 1 = Review is granted to the extent it addresses the Court's Issue Number 4; review is denied in all other respects;

Issue Number 2 = Review is granted to the extent it addresses the Court's Issue Number 2; review is denied in all other respects.

FURTHER ORDERED: Joinder in APS Petition for Review and Notice of Intent to File Response to Petitions for Interlocutory Review [Joint Petitioner Cyprus Minerals Company and Apache Powder Company]:

Review is granted and denied to the same extent as the petition of Arizona Public Service Company, Magma Copper Company, and Farmers Investment Company is granted and denied.

FURTHER ORDERED: Petition for Interlocutory Review [Joinder] [Petitioner Church of Jesus Christ of Latter Day Saints]:

Review is granted and denied to the same extent that the petitions of City of Glendale, Roosevelt Water Conservation District, Arizona Public Service Company, Magma Copper Company, Farmers Investment Company, Cyprus Minerals Company, Apache Powder Company, City of Phoenix, Salt River

Project Agricultural Improvement and Power District and the Salt River Valley Users' Association are granted and denied.

FURTHER ORDERED: Petition for Interlocutory Review [Joinder] [Petitioners Central Arizona Irrigation and Drainage District, Maricopa-Stanfield Irrigation & Drainage District and New Magma Irrigation & Drainage District]:

Review is granted and denied to the same extent as the petitions of Arizona Public Service Co., Magma Copper Co., Farmers Investment Co., Roosevelt Water Conservation District and the City of Glendale are granted and denied.

FURTHER ORDERED: Cross-Petition of United States for Interlocutory Review [Cross-Petitioner Department of Justice]:

Review is granted to the extent it addresses the Court's Issue Number 3; review is denied in all other respects.

FURTHER ORDERED: Petition for Interlocutory Review [Joinder] [Petitioners Gila Valley Irrigation District and Franklin Irrigation District]:

With respect to the issues in which it expressed "particular interest":

Issue Number 1 = Review is granted to the extent it addresses the Court's Issue Number 2; review is denied in all other respects;

Issue Number 2 = Review is granted to the extent it addresses the Court's Issue Number 3; review is denied in all other respects;

Issue Number 3 = Review is granted to the extent it addresses the Court's Issue Number 3; review is denied in all other respects;

Issue Number 4 = Review is denied.

WC-90-0005-IR **IN THE MATTER OF THE RIGHTS TO THE USE OF THE GILA RIVER vs. ROOSEVELT WATER CONSERVATION DISTRICT**

ORDRED: Roosevelt Water Conservation District's Petition for Interlocutory Review of Portions of Order of September 9, 1988:

Issue Number 1 = Review is granted to the extent it addresses the Court's Issue Number 3; review is denied in all other respects;

Issue Number 2 = Review is granted to the extent it addresses the Court's Issue Number [sic] 4 & 5; review is denied in all other respects;

Issue Number 3 = Review is granted to the extent it addresses the Court's Issue Number 5; review is denied in all other respects.

FURTHER ORDERED: Petition for Interlocutory Review [Joinder] [Petitioner Church of Jesus Christ of Latter Day Saints]:

Review is granted and denied to the same extent that the petitions of City of Glendale, Roosevelt Water Conservation District, Arizona Public Service Company, Magma Copper Company, Farmers Investment Company, Cyprus Minerals Company, Apache Powder Company, City of Phoenix, Salt River Project Agricultural Improvement and Power District and the Salt River Valley Users' Association are granted and denied.

FURTHER ORDERED: Petition for Interlocutory Review [Joinder] [Petitioners Central Arizona Irrigation and Drainage District, Maricopa-Stanfield Irrigation & Drainage District and New Magma Irrigation & Drainage District]:

Review is granted and denied to the same extent as the petitions of Arizona Public Service Co., Magma Copper Co., Farmers Investment Co., Roosevelt Water Conservation District and the City of Glendale are granted and denied.

FURTHER ORDERED: Cross-Petition of United States for Interlocutory Review [Cross-Petitioner Department of Justice]:

Review is granted to the extent it addresses the Court's Issue Number 3; review is denied in all other respects.

FURTHER ORDERED: Petition for Interlocutory Review [Joinder] [Petitioners Gila Valley Irrigation District and Franklin Irrigation District]:

With respect to the issues in which it expressed "particular interest":

Issue Number 1 = Review is granted to the extent it addresses the Court's Issue Number 2; review is denied in all other respects;

Issue Number 2 = Review is granted to the extent it addresses the Court's Issue Number 3; review is denied in all other respects;

Issue Number 3 = Review is granted to the extent it addresses the Court's Issue Number 3; review is denied in all other respects;

Issue Number 4 = Review is denied.

WC-90-0006-IR **IN THE MATTER OF THE RIGHTS TO THE USE OF THE GILA RIVER vs. CITIES OF MESA, TEMPE, CHANDLER, AVONDALE AND CASA GRANDE**

ORDERED: Petition for Interlocutory Review [Petitioner Cities of Mesa, Tempe, Chandler, Avondale & Casa Grande]:

Issue Number 1 = Review is denied;

Issue Number 2 = Review is granted to the extent it addresses the Court's Issue Number 6; review is denied in all other respects.

FURTHER ORDERED: Cross-Petition of United States for Interlocutory Review [Cross-Petitioner Department of Justice]:

Review is granted to the extent it addresses the Court's Issue Number 3; Review is denied in all other respects.

FURTHER ORDERED: Petition for Interlocutory Review [Joinder] [Petitioners Gila Valley Irrigation District and Franklin Irrigation District]:

With respect to the issues in which it expressed "particular interest":

Issue Number 1 = Review is granted to the extent it addresses the Court's Issue Number 2; review is denied in all other respects;

Issue Number 2 = Review is granted to the extent it addresses the Court's Issue Number 3; review is denied in all other respects;

Issue Number 3 = Review is granted to the extent it addresses the Court's Issue Number 3; review is denied in all other respects;

Issue Number 4 = Review is denied.

WC-90-0007-IR **IN THE MATTER OF THE RIGHTS TO THE USE OF THE GILA RIVER vs. CITY OF GLENDALE**

ORDERED: City of Glendale's Petition for Review by Interlocutory Appeal of the Trial Court's September 9, 1988 Order [Petitioner City of Glendale]:

Issue Number 1 = Review is granted to the extent it addresses the Court's Issue Number 4; review is denied in all other respects;

Issue Number 2 = Review is denied;

Issue Number 3 = Review is granted to the extent it addresses the Court's Issue Number 3; review is denied in all other respects.

FURTHER ORDERED: Petition for Interlocutory Review [Joinder] [Petitioner Church of Jesus Christ of Latter Day Saints]:

Review is granted and denied to the same extent that the petitions of City of Glendale, Roosevelt Water Conservation District, Arizona Public Service Company, Magma Copper Company, Farmers Investment Company, Cyprus Minerals Company, Apache Powder Company, City of Phoenix, Salt River Project Agricultural Improvement and Power District and the Salt River Valley Users' Association are granted and denied.

FURTHER ORDERED: Petition for Interlocutory Review [Joinder] [Petitioners Central Arizona Irrigation and Drainage District, Maricopa-Stanfield Irrigation & Drainage District and New Magma Irrigation & Drainage District]:

Review is granted and denied to the same extent as the petitions of Arizona Public Service Co., Magma Copper Co., Farmers Investment Co., Roosevelt Water Conservation District and the City of Glendale are granted and denied.

FURTHER ORDERED: Cross-Petition of United States for Interlocutory Review [Cross-Petitioner Department of Justice]:

Review is granted to the extent it addresses the Court's Issue Number 3; review is denied in all other respects.

FURTHER ORDERED: Petition for Interlocutory Review [Joinder] [Petitioners Gila Valley Irrigation District and Franklin Irrigation District]:

With respect to the issues in which it expressed "particular interest":

Issue Number 1 = Review is granted to the extent it addresses the Court's Issue Number 2; review is denied in all other respects;

Issue Number 2 = Review is granted to the extent it addresses the Court's Issue Number 3; review is denied in all other respects;

Issue Number 3 = Review is granted to the extent it addresses the Court's Issue Number 3; review is denied in all other respects;

Issue Number 4 = Review is denied.

DATED this 11th day of December, 1990.

/s/ Stanley G. Feldman
STANLEY G. FELDMAN,
VICE CHIEF JUSTICE

APPENDIX C

IN THE SUPREME COURT OF THE
STATE OF ARIZONA

IN RE THE GENERAL ADJUDICATION OF ALL RIGHTS TO USE WATER IN THE GILA RIVER SYSTEM AND SOURCE	Action No. WC-1, WC-2, WC-3 and WC-4 (consolidated) Maricopa County Superior Court Nos. W-1, W-2, W-3 and W-4 (consolidated) SPECIAL PROCEDURAL ORDER PROVIDING FOR INTERLOCUTORY APPEALS AND CERTIFICATIONS

Pursuant to Article 6, § 5 of the Arizona Constitution, A.R.S. §§ 45-259 and 12-2101, and Rule 19(a)(3) and (f), Arizona Rules of Civil Appellate Procedure, 17B A.R.S., the following procedure is adopted for interlocutory appeals and certifications arising from this general adjudication:

A. Scope

Any party to this general adjudication of water rights under A.R.S. § 45-251 *et seq.* may petition the Supreme Court to review by interlocutory appeal any ruling of the superior court. Also, the trial court may certify to the Supreme Court questions deemed substantial and properly the subject of interlocutory review or appeal under this rule.

B. Grounds

The decision whether to grant or deny a petition for interlocutory review or appeal or certification shall be discretionary. In the exercise of its discretion the Supreme Court may consider, without limitation, the following factors:

1. That the ruling of the superior court is in conflict with a ruling from another adjudication proceeding pursuant to A.R.S. § 45-251 *et seq.*;

2. That the ruling has decided an important question of law that should be decided by the Supreme Court before further proceedings or final judgment in the trial court;

3. That substantial savings of time, expense, or resources may be achieved through early appellate review;

4. That the interests of justice otherwise require early appellate review;

5. Those factors described in Rule 23(c)(4), Ariz.R.Civ.App.P., 17B A.R.S., or Rule 3, Ariz.R.P.Spec.Act., 17B A.R.S.

C. Time for Filing of Petition; Cross-Petition

A petition or certification seeking interlocutory review or appeal of a trial court ruling made prior to the effective date of this order shall be filed within one hundred fifty days after the effective date of this order. A petition or certification seeking interlocutory review or appeal of a trial court ruling made after the effective date

of this order shall be filed within ninety days after the trial court's ruling. For purposes of this rule, the date of the trial court's ruling shall be the date on which the last motion for reconsideration or request for amendment and/or alteration, however denominated, is finally resolved, providing such motion is filed within thirty days after the date the trial court first ruled on the question. A cross-petition for an interlocutory appeal may be filed within thirty days after service of a petition or certification.

D. Form and contents of petition, cross-petition or certification

To the extent possible, the petition, cross-petition or certification seeking interlocutory review or appeal shall comply in form and content with Rule 23(c), Ariz.R.Civ.App.P., 17B A.R.S. In addition, the petition or cross-petition shall contain a concise statement showing why the questions are ripe for interlocutory appeal.

E. Service

The petition, cross-petition or certification shall be served in the same manner as the superior court pleadings in this general adjudication, as follows:

1. A copy of the petition, cross-petition or certification shall be mailed to all parties listed on the trial court's approved mailing list pursuant to Pre-Trial Order No. 1. A copy of the current approved mailing list shall accompany the petition. In addition, a copy of the petition, cross-petition or certification shall be filed in this

general adjudication proceeding. A copy of the petition, cross-petition or certification shall be served on the judge or master who made the ruling in question and on the Arizona Department of Water Resources.

2. The Arizona Department of Water Resources shall promptly serve a copy of the petition, cross-petition or certification on the judge or master and clerk of any other superior court in which a general adjudication is pending, who shall then give appropriate notice of the pendency of such petition to the parties to that adjudication.

F. Response

Within forty-five (45) days after service of a petition, cross-petition or certification, any party to the trial court proceeding may file a response, which shall comply in form and content with section (D) of this order and be served in the same manner as the petition, cross-petition or certification. Parties to other pending general adjudication [sic] desiring to participate in an interlocutory appeal shall file a motion for leave to intervene within forty-five (45) days after service of the petition pursuant to subsection (E)(2).

G. Reply

Any party to the proceeding below may reply to any response within thirty (30) days after service thereof. A reply shall be served in the same manner as a petition.

H. Order on petition; service

1. This court may issue its order on the petition, cross-petition, or certification without oral argument. The order shall grant or deny review by interlocutory appeal and specifically list those questions, if any, granted. An order denying a petition or certification or any part thereof shall not have any precedential value.

2. The order granting or denying interlocutory appeal shall be served by the Clerk of the Supreme Court on the trial judge, the master, the petitioner, the cross-petitioner, if any, and all persons listed on the service list accompanying the petition, and shall be filed of record by the Clerk of the Superior Court.

3. An order granting review by interlocutory appeal shall also schedule a pre-submittal conference not sooner than sixty (60) days after the service of the order, as provided below.

4. The Supreme Court may, on its own motion or on motion of the parties, consolidate one or more petitions, cross-petitions, or certifications from the same or different general adjudication proceedings for any or all purposes.

I. Pre-submittal conference

No later than twenty (20) days prior to the scheduled presubmittal conference, each party desiring to participate in the interlocutory appeal shall file a notice of appearance in the Supreme Court. The trial court shall not be deemed a party to the appeal, nor shall it participate in the appeal in any respect, even if the appeal is

based on its certification. The Supreme Court may designate the parties as appropriate and, in the case of a certification, may align the parties in accord with their true interest in the questions presented. At the presubmittal conference, the Supreme Court shall make orders regarding further briefing and oral argument, if any. It shall also determine what portion of the record will be required to be transmitted, the date of transmittal, the parties to join in the presentation of issues, and other appropriate matters.

J. Standard of review

The standard of review to be applied to any interlocutory appeal under this rule shall be the same standard that would apply had the review been made following a final judgment in the adjudication proceeding.

K. Costs and attorneys' fees

Unless provided by statute, there shall be no application for costs or attorneys' fees made to the Supreme Court in connection with a petition for review by interlocutory appeal or with an interlocutory appeal granted under this rule. However, Rule 25, Ariz.R.Civ.App.P., 17B A.R.S., is fully applicable to pleadings filed pursuant to this order. All other issues of costs and attorneys' fees, if any, shall abide the final resolution of the adjudication.

L. Other procedures

1. Except as otherwise provided herein, the Arizona Rules of Civil Appellate Procedure shall apply to proceedings under this order. Insofar as may be necessary, the provisions of Rule 5, Ariz.R.P.Spec.Act., 17B A.R.S., concerning stays, *ex parte* orders, restraining orders, and injunctions shall also apply.

2. This order is the exclusive remedy for the presentation of interlocutory issues to this court in this adjudication, including those issues that otherwise might be presented pursuant to the Rules of Procedure for Special Actions.

M. Priority

Insofar as possible, matters in this general adjudication shall be determined in preference to other civil matters.

N. Filing date and extension of time periods

All pleadings in any proceeding under this order shall be deemed filed on the day of mailing if deposited in a United States Post Office or mailbox, addressed to the Clerk of the Supreme Court, within the time allowed for filing. The Court, on its own motion, or by motion of a party with good cause shown, may grant extensions of any of the time limits set out in this order.

COMMENTS

Purpose. The purpose of this order is to establish a procedure for early review of all substantial questions in this general adjudication of water rights. Early appellate review may avoid wasteful trial court proceedings, may result in substantial savings of time or expense, or may for other reasons be in the interests of justice. The rule is not intended to be used for interlocutory appeal of individualized matters except where such an appeal might result in a ruling of general application that would advance the adjudication process.

Need. Existing procedure allows interlocutory considerations of trial court rulings in certain limited circumstances. Thus, A.R.S. § 12-2101 describes the appellate jurisdiction of the Arizona Court of Appeals with respect to final judgments and certain interlocutory orders. Rule 54, Ariz.R.Civ.P., 16 A.R.S., provides a certification procedure for making certain judgments final that would not otherwise be appealable. The Rules of Procedure for Special Actions permit discretionary review of interlocutory decisions where the decision is arbitrary, capricious, or an abuse of discretion, or where the trial court may be proceeding without, or in excess of, jurisdiction. None of these procedures, however, provides for discretionary appellate jurisdiction of the Supreme Court other than in these limited circumstances.

A general adjudication of water rights filed pursuant to A.R.S. § 45-251 *et seq.* is a lengthy proceeding that requires investment of vast public and private resources. There is a need to provide for discretionary appellate review of interlocutory decisions of the trial court in this

proceeding to avoid the waste that might otherwise occur if significant interlocutory decisions were only reviewable after final judgment, which might not be entered for several years.

Jurisdiction and authority. Article 6, § 5 of the Arizona Constitution provides that the Supreme Court shall have:

> 3. Appellate jurisdiction in all actions and proceedings except civil and criminal actions originating in courts not of record, unless the action involves the validity of a tax impost, assessment, toll, statute or municipal ordinance.
>
> * * *
>
> 5. Power to make rules relative to all procedural matters in any court.

Rule 19, Arizona Rules of Civil Appellate Procedure, 17B A.R.S., authorizes the Supreme Court to transfer appeals from the Appeals Court on its own motion. The adoption of this special procedural order will effectively transfer all interlocutory appeals under this order to the Supreme Court pursuant to Rule 19(f).

Service. Subsection (D) of the order provides for service of the petition on parties to the adjudication in the same manner as other pleadings are served. In addition, filing the pleading of record in the superior court proceedings will cause the petition to be listed in the clerk's docket summary, which is mailed monthly to subscribers and which is available in the clerk's office for review by any party.

Response/cross-petition. The response provides a party with the opportunity to support the petition or set

forth the reasons why the petitions should not be granted. The response may also seek to narrow the scope of the interlocutory appeal if granted or to reformulate the matter for which interlocutory appeal is sought. The cross-petition may seek to have the court grant an interlocutory appeal of additional related questions if the petition or certification is granted. The cross-petition should make the same showing as required for the petition itself.

Order denying petition. Unless stated to the contrary, an order denying a petition, cross-petition or certification is not intended to indicate that the Supreme Court approves of the trial court's ruling, but only that the Supreme Court has determined that there is an insufficient basis on which to grant review by interlocutory appeal. A subsequent petition, cross-petition or certification seeking interlocutory review or appeal of a ruling for which a previous petition has been denied may be entertained by the court, but only on a showing of a change of circumstances or additional grounds which could not, in the exercise of reasonable diligence, have been known at the time of the previous petition, cross-petition or certification.

Stay. The granting of a petition for an interlocutory appeal shall not stay the proceedings in the superior court unless expressly so ordered by the Supreme Court.

Dated this 26th day of September, 1989.

/s/ Stanley G. Feldman
STANLEY G. FELDMAN,
VICE CHIEF JUSTICE

[Mailing List Omitted]

APPENDIX D

IN THE SUPERIOR COURT OF THE
STATE OF ARIZONA

IN AND FOR THE COUNTY OF MARICOPA

IN THE GENERAL ADJUDICATION OF ALL RIGHTS TO USE WATER IN THE GILA RIVER SYSTEM AND SOURCE	W-1 (Salt) W-2 (Verde) W-3 (Upper Gila) W-4 (San Pedro) ORDER

INDEX

SUBJECT	NO.	PAGE NO.
Introduction	1	1
Is the Process of Issue Identification and Resolution Followed Here and Throughout This Case Appropriate	2	4
Is the Jurisdiction of this Case Determined by the McCarran Amendment or by Arizona Statutes	3	7
Agreements by Counsel as to What Should Be Included Which May Not Be Clearly Within Parameters of A.R.S. §§ 45-141 and 45-251	4	10
The Limits of Jurisdiction as to the Adjudication of Those Claims of Water Rights Under State Law	5	12

Claims Under Federal Law or What Reserved Rights Do Federal Lands or Federal Entrusted Land Have When There Has Been, as of this Date, No Physical Appropriation or Use	6	15
Conclusion	7	23

Introduction

On May 20, 1988 this Court heard argument on the motion of various city claimants to exclude from the adjudication all wells which are pumping "percolating groundwater" and to include in this adjudication only "surface flow" and "sub surface flow" as defined by *Maricopa County Municipal Water Conservation District No. 1 v. Southwest Cotton*, 39 Ariz. 65, 4 P.2d 369 (1931). That motion, filed November 17, 1987, was the result of many discussions herein relating to the relationship between surface water and ground water and how these different sources of water interface and affect each other. This has been an on-going matter of consequence and it resulted, after request of counsel, in five days of hearings on the general subject. From October 19, to 23, of 1987, the court heard the testimony of a number of leading hydrologists and hydrological engineers, including Leonard Halpenny, Thomas M. Stetson, Catherine Kroeger Rovey, William Gookin and William Guyton, as well as others also well qualified. They testified as to groundwater and surface water relationships. Each filed voluminous reports which were received in evidence. These covered the general relationship of ground and surface water and specifically

its relationship in the San Pedro and Santa Cruz watersheds.

Because the issue covered by that five day hearing and the cities [sic] motion fell within the purview of the issues which the court believed were appropriate for determination under section 10 "Issue Identification and Resolution" of Pre-Trial Order No. 1 dated May 29, 1986, this Court, with counsels [sic] concurrence, decided to use the cities' motion as a vehicle to identify and resolve a number of important and sensitive surface water and ground water issues. The matter was discussed at our 11/20/87 hearing in the following terms.

> A discussion is opened by the Court on the decision which the court must make on the Ground water [sic] and Surface Water "Interrelationship" which was the subject of the October 19th to 23rd, 1987 hearing. The Court then brought up the motion filed by numerous cities to exclude ground water from this adjudication. The Court advises it believes it appropriate to expand the cities' motion to the entire issue of the Ground Water and Surface Water Relationship, including whether or not the "Winters Doctrine" applies to ground water. It is agreed that all parties may submit a list of what issues should be included in the determination to be made, provided that no list shall exceed ten pages. The list shall also be submitted no later than 5:00 p.m. on December 8, 1987.
>
> The Court will take up the scope of issues to be considered at its December 17, 1987 hearing. Upon its determination of the issues to be considered, all parties shall have 60 days to brief the same and 30 days thereafter to respond to

> the others' briefs submitted. D.W.R. is specifically ordered to brief the issues ordered and respond, particularly with regards to the matters of what legal authority this Court has in this jurisdiction to act, in what ways different decisions would impact D.W.R.'s ability to provide accurate and correct information and effects upon administration of any decree arrived upon, as well as what other issues D.W.R. as this Court's technical and administrative adviser D.W.R. believes must be considered for his adjudicative process to be meaningful. Minute Entry Order 11/20/87, page 4.

On 12/17/87 the court and counsel discussed the submissions filed and the Court advised it would then decide what those issues would be. On 1/19/88 this Court issued the following orders.

> Pursuant to this Court's order at its November 20, 1987 hearing and the hearing on December 17, 1987, this Court has received the filed lists of issues which a number of parties submitted which they believe should be included in the question of the Ground Water and Surface Water relationship, all as raised by the Motion for Summary Judgment filed by a number of cities to exclude ground water from this adjudication. The Court has also considered the comments made by counsel at our hearing on December 17, 1987. As the Court said then, it has found in many of the lists submitted similar issues raised and in some there was submitted question [sic] of such complexity that a substantial factual hearing would be needed to provide a data base from which to start answering such questions. Such submitted issues have been discarded.

However, after attempting to distill all submissions to issues which can be decided as matters of law and after considering the evidence taken at our hearing on the issue from October 19 to the 23rd, 1987, the Court finds that in addition to the issues raised in the cities' motion, the Court will consider the following issues which it believes are related to the ground water relationship issues of this case.

1. Is ground water included within the phrase "river system and source" as it is used in A.R.S. §§ 45-141 and 45-251(B), and if so, to what extent is it included?

2. Is ground water included within the phrase "water subject to claims based on federal law" as it is used in A.R.S. § 45-251?

3. Assuming that percolating ground water is not included in the definitions of A.R.S. § 45-141 and 45-251(B), does a McCarran Amendment Adjudication require that percolating ground water be included and if so, how can this be done under Arizona law?

4. If the answer to Issue No. 3 is in the affirmative, does the adjudication have to include only claims under federal law or must state law claims as to percolating ground water also have to be included?

5. If the answer to Issue No. 3 is in the affirmative, does the adjudicatory process extend to a determination of rights to percolating ground water which is normally in this state subject to a "reasonable use" standard to the same extent as it does to surface water which normally is subject to "prior appropriation" standard?

6. Does the "Winters" Doctrine of Federal Reserved Rights apply to percolating ground water under and/or outside of a federal reservation, how does it apply and does it apply only to the reduction of surface water resources and/or ground water resources beneath the federal reservation?

7. If percolating ground water in the watershed of the Gila River System is subject to the jurisdiction of this adjudication, what is the affect of the Ground Water Management Act of 1980?

8. Are there technical and/or procedural problems in determining, prioritizing and/or apportioning ground water rights which present problems of such magnitude in the reliability of the data for such a determination that an attempt to prioritize ground water could violate due process requirements? Minute Entry Order dated 1/19/88.

Between 1/29/88 and 5/20/88 this Court received several hundred pages of briefs from many claimants consisting of responses to the cities' 41 page motion, replies to those responses, and finally a reply of the cities to all those responses and replies. In the meantime the Court did have the benefit of a very substantial soon to be published law review article by Professor of Law John D. Leshy of Arizona State University entitled "Arizona Law Where Ground and Surface Water Meet."

It is the issues above delineated and the issues of the cities' motion which were briefed, argued and which this court will attempt to deal with in this order.

Is the Process of Issue Identification and Resolution Followed Here and Throughout This Case Appropriate

As is readily apparent from a reading of the prior section of this order the process being followed here of early issue identification and resolution is neither a traditional nor ordinary method of resolution of legal issues in litigation. This fact has been brought to the court's attention on several occasions by claimants who suggest such issue resolution should await the evidentiary hearings in each watershed. They argue only after all facts are known should such decisions be made. Unfortunately, this adjudication is not traditional litigation or even a traditional complex litigation of multiple parties. Even in that type of case, with many parties, there are generally two, three, four or five sides and the parties line up behind one or another of the sides. In this case there are thousands of claimants, all of whose claims relate to and opposes [sic] all other claims. There is a finite amount of water available. Each claimant's right takes from the possible rights, amount and/or priority of every other claimant. While it is apparent that many of the claimants are in alliance on certain issues, in fact each claimant is adverse to every other claimant no matter whether their property lies in the upper reaches of the Salt or the lower reaches of the Gila.

Making this even more complicated is the fact that the adjudication process of A.R.S. §§ 45-251 to 45-260 provides each claimant shall file a complicated Statement of Claimant and there after [sic] the Department of Water Resources (D.W.R.) shall issue a certain Hydrographic Survey Report (H.S.R.) for each watershed. These reports are the foundational basis from which the master will

determine his report of the rights and priority of the various claimants. Each claimant has a right to object to those reports, and an opportunity to present evidence to support his individual claim, (see A.R.S. §§ 45-254, 256 and 257) but D.W.R.'s H.S.R. is still the foundation of the process. Finally this process has been approved by the Arizona Supreme Court in *U.S. v. Superior Court*, 144 Ariz. 265, 697 P.2d 658 (1985).

For the Department of Water Resources, this has been a long, on-going, expensive and labor intensive process. It requires a high degree of cooperation and advice from the Court as to what it should investigate, how it should report, and what it is that it should be dealing with. The budget for this process exceeds a million dollars per year and it is essential that if this money is to be wisely spent and not wasted, many of these issues need to be resolved before the report is made. In many instances DWR needs instruction as to how they should investigate and report. Often D.W.R.'s questions are the very ones considered in this issue identification and resolution process. If this is not done first, D.W.R. and its personnel will waste money, manpower and effort on matters which will be meaningless, issues will have to be restudied, but most of all the process significantly delayed because the report focused on the wrong issues, facts or rights.

Delay may be of benefit to some claimants, particularly those who already have and are using the water. For those who claim "reserved rights" and do not presently have actual use of the water, unnecessary delay is an unconscionable additional burden.

It is evident this adjudication will be a long process, but it need not be made longer simply to satisfy the ordinary and traditional method of "one on one" litigation. This case is very unique. A.R.S. §§ 45-251 et. [sic] seq. Our Supreme Court recognized this is in *U.S. v. Superior Court, supra.* It also recognized its uniqueness in its latest order of March 3, 1988 which says:

> Further construing the terms of Rule 53(a), the Court does not believe it necessary that every factual issue in this case be decided in a traditional courtroom proceeding. Much of the factual evidence in this case may well be gleaned from documents, historical records, archaeological data and the like. The parameters of the trial judge's evidentiary discretion in this case are considerable.

Finally the court points out that what it has done here is consistent with the process outlined in its Pre-Trial Order #1, article 10.

For all of those reasons this Court overrules any objections to the process being followed.

Is the Jurisdiction of this Case Determined by the McCarran Amendment or by Arizona Statutes

An appropriate place to start the discussion of the issues here involved is whether the jurisdiction of this case is determined by the McCarran Amendment, 43 U.S.C. [sic] 666, or by Arizona statutes A.R.S. §§ 45-141 and 45-251(B). To a large extent this issue is a microcosm of the larger issue to be determined here. On one hand

the federal claimants and Indian tribes claim the adjudication must include all water, surface and ground, which is hydrologically connected, no matter how slight the connection to meet some test of "Comprehensiveness" which they claim a "McCarran Act" adjudication requires. On the other hand, many if not all of the state right claimants want the adjudication limited to surface water appropriable under A.R.S. § 45-141 (surface and sub surface flow) and "water rights subject to claim based on federal law" under A.R.S. § 45-251, which they define as reserved rights derived from *Winters v. United States*, 207 U.S. 564, 28 S. Ct [sic] 207, 52 L. Ed. 340 (1908). The extent of this conflict is probably best illustrated by the claim of the United States that this Court must prioritize and apportion all ground water rights in the state, whether related to a federal reserved water right or not. This they claim in spite of the long held Arizona rule that ground water is not "appropriable" and such "appropriability" sets the limits of this adjudication's jurisdiction as to state right claimants under A.R.S. § 45-141.

Fortunately for this case, the argument has no merit.

1. The McCarran act [sic] is an act of procedural context which waives the sovereign immunity of the United States, its agencies and those Indian tribes which are subject to trust status.

2. The McCarran Act does not confer or define the jurisdiction of the adjudicating court and confers no substantive rights on the adjudicating court or change the water law of the state in which the adjudication occurs.

3. Each state can define its own process for the adjudication as long as it meets the McCarran Act

guidelines. If that process meets those guidelines then the waiver of sovereign immunity applies.

4. The jurisdiction of this court for this adjudication is provided by A.R.S. §§ 45-141 and 45-251. It consists of that "river system and source" which is appropriable under A.R.S. § 45-141 and "all water subject to claims based upon federal law." A.R.S. § 45-251.4.

It is clear that percolating ground water in this state is not subject to appropriation. *M.C.M.W.D. No. 1 v. S. W. Cotton*, supra and *Bristor v. Cheatham*, 75 Ariz. 227, 255 P.2d 173 (1953). There is not a "comprehensiveness" requirement in the McCarran Act that makes it otherwise. Not one of the cases cited by the United States in its memoranda for that "proposition" supports their theory. Most clearly conflict with it. Those cases are *Dugan v. Rank*, 372 U.S. 609, 83 S.Ct. 999, 10 L.Ed2d [sic] 15 (1963); *United States v. District Court*, 401 U.S. 520, 91 S.Ct. 998, 28 L.Ed.2d 278 (1971); *Colorado River Water Conservation District v. United States* 424 U.S. 800, 96 S.Ct. 1236, 47 L.Ed.2d 483 (1976); *California v. United States*, 438 U.S. 645, 98 S.Ct. 2985, 97 L.Ed.2d 1018 (1978); *United States v. Bluewater Toltec Irrigation District*, 580 F. Supp [sic] 1434, 1446 (1984); and *Matter of Determination of Conflicting Rights*, 484 F. Supp [sic] 778, 783, 784 (D.Ariz. 1980). Each one of these cases flies in the face of the comprehensiveness theory that the United States suggests. In each one of them there was a significant degree of non-comprehensiveness. There is not a single case which supports the comprehensiveness theory the United States claim [sic]. This theory is an unwarranted extension of an attempt to foster federal claims. Even in a recent case cited by the United States for its position, *Idaho ex rel Higginson v.*

Unites [sic] *States*, No. 39576 (Idaho District Ct., Twin Falls County, Oct. 14, 1987) the Department of Justice argued exactly the opposite. This was in the Snake River adjudication. While it is true Judge Hurlbutt ruled to include state groundwater users in the adjudication, it was because his statute, Idaho Code § 42-1406(A) (Supp 1987) specifically made "all users of surface and ground water" on the Snake river [sic] system subject to the adjudication. A.R.S. §§ 45-141 and 253 are to the contrary. They retain Arizona's long held concept that it is only appropriable water (surface and subsurface flow) which is subject to the adjudication where the right claimed is under state rights.

Based on all of the above this court finds its jurisdiction is limited by and defined by A.R.S. §§ 45-141 and 45-251 and is neither enlarged by or restricted by 43 U.S.C. [sic] 666.

Agreements by Counsel as to What Should Be Included Which May Not be Clearly Within Parameters of A.R.S. §§ 45-141 and 45-251

The cities' motion of 11/17/87 started out claiming that all wells pumping "percolating ground water" should be excluded from the case. However, by the time of the argument on 5/20/87 every one [sic] through the evolutionary process of briefing and argument had come to agree with the position of Thomas M. Stetson who on 10/20/87 in describing a similar adjudication in the San Gabriel River Watershed of California recommended that all wells be included and cataloged at least for location, date of drilling, first use, historical data, and amount of

water even if the jurisdictional limits of the case did not require a determination of their priority and entitlement. Inclusion in the judgment of the data base of all the wells for those purposes appears to be commonly agreed upon and accepted by many who argued on 5/20/88. It was opposed by none. The Department of Water Resources will be so ordered to include the same in its reports and they will be so recognized in any judgment arrived at, even if their source does not fall in the area of water which is appropriable or subject to federal claims.

Secondly, the proponent of the cities' motion and several other counsel agreed in argument that because of the cases *M.C.W.C.D No. 1 v. Southwest Cotton*, supra and *Pima Farms v. Proctor*, 30 Ariz. 96, 245 P. 369 (1926), the court must include in appropriable water not only the surface flow of a stream but also the sub-surface flow which supports and is connected to the surface flow. This is so even though the *Southwest Cotton* case defines this sub-flow in a more limited fashion than the *Pima Farms* case, using the following terms.

> The best test which can be applied to determine whether underground waters are as a matter of fact and law part of the surface stream is that there cannot be any abstracting of the water of the underflow without abstracting, a corresponding amount from the surface stream,
>
> * * *
>
> Does drawing of the subsurface water tend to diminish appreciably and directly the flow of the surface stream?
>
> (39 Ariz. at 96 and 97)

Still, where to factually draw the line on the ground remains a significant problem. The point most counsel accept, though some go further, is the suggestion of hydrologist Leonard Halpenny, that at least those wells which withdraw water from the "younger alluvium" of the tributary streams' basin should be presumed to be pumping sub-flow. The Court will accept that and will instruct D.W.R. in its reports to investigate such and treat such wells as pumping appropriable stream flow provided that the investigation shows:

1. As to wells located in or close to that younger alluvium, the volume of stream depletion would reach 50% or more of the total volume pumped during one growing season for agricultural wells or during a typical cycle of pumpage for industrial, municipal, mining, or other uses, assuming in all instances and for all types of use that the period of withdrawal is equivalent to 90 days of continuous pumping for purposes of technical calculation.

2. A well is designated on state records as an in lieu well [sic]

3. A well is designated by state certification as pumping surface flow, such as the wells for Pima Farms.

While it may appear the above instructions are somewhat arbitrary, they are basically for use in instructing D.W.R. in the preparation of its H.S.R. It certainly shall not preclude any owner of such a well, at the time of the evidentiary hearing, from coming in and showing that the well is not pumping sub-flow, regardless of the location of the source of that well.

The Limits of Jurisdiction as to the Adjudication of Those Claims of Water Rights Under State Law

By this point, it should be obvious that the limits of jurisdiction of this adjudication are the limits of the two types of claims to be included. These are the claims of those being made under a state right appropriation and under reserved rights which are derived because the land is federally owned or federally intrusted. In this section of the order the Court will discuss the state right appropriations.

Under A.R.S. § 45-252 any water user of a river system or source may petition for an adjudication of "the nature, extent and relative priority of the water rights of all persons in the river system and source." It is the definition of what the "river system and source" is which sets the limits or jurisdiction of this adjudication. In A.R.S. § 45-251.4 the first category is "all water appropriable under § 45-141." A.R.S. § 45-141.A reads as follows.

> A. The water of all sources flowing in streams [sic] canyons, ravines or other natural channels, or in definite underground channels, whether perennial or intermittent, flood, waste or surplus water, and of lakes, ponds and springs on the surface, belong to the public and are subject to appropriation and beneficial use as provided in this chapter.

Therefore, the first and largest category of sources of water supply subject to this adjudication, and necessarily the largest is the segment of the water supply already appropriated and in use, surface flow. This includes by way of illustration the surface flow of the Salt, Verde, Gila, Agua Fria, Black, and other rivers or streams.

Second, we have the sub-flows of these rivers as such sub flow [sic] is defined by the *Southwest Cotton* case and those which follow it. No matter what one may suggest about the present day technical accuracy of Justice Lockwood's 1931 decision in *Southwest Cotton*, it has been the law in this state for more than 50 years and accurately reflects what the law was for the fifty years prior to its decision.

Having decided that under claims based on state law this court has jurisdiction only to determine the "nature, extent, and relative priority" of surface and sub surface flow, the Court believes it should also define what it may not consider under state law, because later on it must consider whether that rule remains the same for claims under federal law.

As of the Gadsen [sic] Purchase in 1853, water rights in this state were as set forth on page 75 of 39 Ariz. Reports in the [sic] *Southwest Cotton*. By case and statute, Arizona long ago decided that only surface water and stream flow are appropriable. As to percolating groundwater, there was no right of appropriation. Since territorial days, Arizona law has been that a user of percolating ground water had a right to remove such water anytime for any reasonable use as long as it was put to that use on the land from which it was withdrawn. This was permissible without reference to its effect on his neighbor's static water level, effect on his neighbor's ability to withdraw groundwater from his well or it's [sic] effect on his neighbor's upstream or downstream surface flow level, *Bristor v. Cheatham, supra, England v. Ally Ong Hing*, 8 Ariz. App. 374, 446 P.2d 480, [sic] (1968) 8 Ariz. App. 558, 448 P.2d 128 (1969); *Bull v. Siegrist*, 169 Or. 180, 126 P.2d 832 (1942); *Jarvis v. State Land Department*, 104

Ariz. 527, 456 6 [sic] P.2d 385 (1969); 106 Ariz [sic] 506, 479 P.2d 169 (1970); 113 Ariz [sic] 230, 550 P.2d 227 (1976); *Farmers Investment Co. v. Bettwey*, 113 Ariz [sic] 520, 558 P.2d 14 (1976). Except for the provisions of the Groundwater Management Act, A.R.S. §§ 45-401 through 45-655, that is still the law in this state today.

A *caveat* needs to be inserted here, for the Groundwater Management Act has created significant changes in the right to withdraw and use such groundwater in those areas designated by the law as Active Management Areas (A.M.A.s) and Irrigation Nonexpansion Areas (I.N.A.s). Those changes need not be gone into here except to state that in those areas the right to basically withdraw and use percolating groundwater has gone from what could formerly be annalogized [sic] to a limited form of "riparian" right to a much more restricted "appropriative" right. Finally it should be noted that the enactment of that act also has the effect to cause our Supreme Court to recognize in *Town of Chino Valley v. City of Prescott*, 131 Ariz. 78, 638 P.2d 1324 (1981), appeal dismissed 457, [sic] U.S. 1101 (1982), rehearing denied 459 U.S. 899 (1982), that the owner of the overlying surface had no *right* to withdraw the water beneath his lands for reasonable use until that right came into being by the actual withdrawal and then, and only then, that right was only for the limited purpose of using the water.

> We therefore hold that there is no right of ownership of groundwater in Arizona prior to its capture and withdrawal from the common supply and that right of the owner of the overlying land is simply to the usufruct of the water.
>
> (131 Ariz. at 82)

Further the Arizona Supreme Court recognized that the right to make such a withdrawal was subject to legislative control, to wit: the Groundwater Management Act. See also *Cherry v. Steiner*, 543 F.Supp. 1270 (D. A. 1982).

Having said all of the above, a further *caveat* needs be inserted as it will lead to the next section of this order, to wit: a discussion of claims based on federal law or federal reserved water rights. Arizona by its statutes, constitution and case law from 1865 on, had an ability to affect only those water rights derived under Arizona law. It could not by enactments such as the Groundwater Management Act or its long line of decisions on the subject or otherwise affect the reserved water rights to surface water or groundwater of federally owned or federally entrusted lands such as Indian reservations.

Claims under [sic] Federal Law or What Reserved Rights Do Federal Lands or Federal Entrusted Land Have When There Has Been, as of this Date, No Physical Appropriation or Use

There are basically three different kinds of federal lands involved in this case. *First*, there is federally owned land as to which there is no federal statutory purpose or dedication to its use. As to such non-dedicated land, it has no greater rights to water use than any other neighboring private or state owned lands. There is no federal reserved right which attaches. There really is no issue in this case as to these lands.

Second, there are those federal lands which have a dedicated statutory purpose, such as national forests, parks, monuments, air fields, military establishments, etc.

All of these have federal reserved rights, whether in actual use or not, whose priority goes back to the date of the statutory enactment of the properties [sic] purpose. *United States v. New Mexico*, 438 U.S. 696, 98 S.Ct. 3012, 57 L.Ed2d. [sic] 1052 (1978).

Third, there are the federally entrusted lands, basically Indian reservations which also have federal reserved rights, whether in actual use or not, whose priority goes back to the date of the establishment of the reservation either by treaty, statutory enactment, or executive order.

While the above is a minimum picture of the rights involved, it is significantly more complicated and to a large extent somewhat undecided by the federal courts whose decisions bear on the subject. In the most recent decision on point, *In re Water of Hallet Creek Stream System*, 749 P.2d 324 (Cal. 1988) the Supreme Court of California indicated all federal lands start off with exactly the same rights to water as their neighboring private lands, plus they have such additional federal rights as accrue to that land by reason of its dedicated federal purpose. Their reserved water right is determined by federal case law or federal statute, except where that statute or case law chooses to apply the law of the state where the land is located.

Under the case of *United States v. New Mexico, supra*, all dedicated federal land has reserved to it that minimum amount of water which is necessary to effectuate the primary purpose of the land set aside. As to all secondary purposes there is no reserved right to water

and the United States can acquire water for that secondary purpose only in the same manner as any other user in the state.

The rule is a little different for entrusted lands, Indian reservations. Starting with the case of *Winters v. United States,* supra in 1908 and continuing through *Arizona v. California,* 373 U.S. 546, 83 S.Ct. 1468, 10 L.Ed.2d 542 (1963) and *Arizona v. California,* 460 U.S. 605, 103 S.Ct. 1382 [sic] 75 L.Ed.2d 318 (1983) the federal courts have continually held that each Indian reservation has reserved to it such water as is necessary to effectuate the purpose of that reservation. While as to other types of federal lands courts have allowed controversy about what the purpose of the land is and how much water will satisfy that purpose, as to Indian reservations the courts have drawn a clear and distinct line. It is that the amount is measured by the amount of water necessary to irrigate all of the *practicably irrigable acreage* (P.I.A.) on that reservation. In the opinion of this Court, the United States Supreme Court has drawn such a clear and distinct line for Indian reservations for fear that in cases such as this, they could be drawn into a potential racial controversy where some water user claims the reservations [sic] purpose was that of a "prisoner of war" camp where the "cavalry" intended to secure "wild marauders" from the surrounding "peaceful settlers", and how much water does a P.O.W. camp need?

In every decided case which has dealt with the subject, the amount of available water on or near the reservation was close to or enough to satisfy all the needs of the reservation and surrounding lands. That is not true in our desert environment.

While there is no case saying so, rationality must require another limiting factor in cases such as ours. With regard to federal reserved right claimants, including Indian reservations in limited water or desert environments, there must be the limiting factor of the amount of water from all sources available on or near the reservation on or about the date of the dedication of the land's purpose. The water to satisfy the federal purpose or practicably irrigable acreage cannot exceed that amount.

A major issue of nearly every brief filed for this hearing and the cities' motion, with the exception of the federal and Indian claimants, was the argument that if there was a federal reserved right to water, that right was limited only to "surface water". The claim is that there is no federal reserved right to ground water. In support of this proposition, every claimant except the federal and Indian claimants cite *Cappaert v. United States*, 426 U.S. 128, 96 S.Ct. 2062, 48 L.Ed.2d 523 (1978)[.] On the other side, every federal and Indian claimant cites the prior Ninth Circuit decision holding that there is a reserved right to ground water. While that decision was vacated, its result was affirmed. See 508 Fed [sic] 313 (1974). Interestingly, on this issue the Supreme Court decision has some very note worthy [sic] things to say.

> The implied-reservation-of-water-rights-doctrine, however, reserves only that amount of water necessary to fulfill the purpose of the reservation, no more.
>
> * * *
>
> No cases of this court have applied the doctrine of implied reservation of water rights to groundwater. Nevada argues that the implied

> reservation doctrine is limited to surface water. Here, however, the water in the pool is surface water. The federal water rights were being depleted because, as the evidence showed, the "[g]roundwater and surface water are physically interrelated as integral parts of the hydrologic cycle."
>
> * * *
>
> Thus, since the implied-reservation-of-water-rights doctrine is based on the necessity of water for the purpose of the federal reservation, we hold that the United States can protect its water from subsequent diversion, whether the diversion is of surface or groundwater.
>
> (426 U.S. at 141-143)

There are two ways one can interpret this decision, but both lead to the same conclusion. *First*, the implied reservation theory applies only to surface water, but since all surface water is interconnected to sources of groundwater, the right holder can prevent groundwater withdrawals that will decrease the amount of surface water available to fulfill the federally dedicated purpose. If you protect the groundwater pool to preserve the surface water flow, in effect you preserve the groundwater pool beneath the federal land available for withdrawal by federal right holders. *Second*, that the United States Supreme Court doesn't care where the water comes from, as long as sufficient sources remain to fulfill that property's purpose on a priority basis. Both theories work to preclude groundwater diversion which reduces water sources on the reservation, regardless of whether or not the diversion is on or off the reservation. In this Court's opinion, the second theory is more logical, reasonable

and in line with scientific theories of the integrated hydrologic cycle. This Court finds that federal reserved water rights apply to both surface water and groundwater sources on and off the reservation whose diversion affects reservation sources, to the extent that there is not enough water left to satisfy the reservation's purpose, or P.I.A. if the land is an Indian reservation.

Next, moving into an area in which there is no direct case or statutory authority in point, this Court believes that the doctrine enunciated in *United States v. New Mexico*, supra requires that the Court structure any judgment and its enforcement so that the impact of the use of federal reserved rights is minimized upon those whose state rights will be diminished and who had no "fault" in utilizing "water" which will now be used to fulfill Indian and federal reserved rights. In its power to mitigate loss and damages, a court has the power and should structure any judgment so that the actual taking and use of this federal reserved right is done in a manner which will minimize its effect on other users while still providing a source to meet the quantity needed. For example, a court, after taking evidence to provide a basis therefore, could apportion the federal reserved right between surface and groundwater in such a way that the quantity needed is fulfilled but the damage or loss to other users is minimized.

This is allowable because no decision has ever indicated that the source of the water is important, as long as the need is fulfilled. Also in support of this theory, it is worth noting the United States Supreme Court has also often stated that with regard to water law, to the extent

state water law can be followed without the diminishment of those rights which federal law seeks to protect, the federal court should allow state law to remain in effect.

While Arizona courts in *Southwest Cotton, supra,* and later cases have indicated that a surface water user has no right to sue or enjoin an upstream groundwater user whose reasonable use affects the flow of downstream groundwater, those rulings are not binding on the United States in its proprietary or trust capacity as to reserved surface water rights. Federal reserved surface water rights are subject to federal case law. That case law established in *Cappaert v. United States, supra* preserves federal surface water availability within such time frame as would affect the federal government's ability to carry out the primary purpose given the establishment of the federal reservation.

There is no question and the testimony in [sic] October, 1987 hearing clearly showed that to allow unlimited downstream groundwater pumping, even for a reasonable or beneficial use on the land above where the groundwater source is located, will and has significantly diminished the flow of many of Arizona's perennial and intermittent streams, including the Santa Cruz and the San Pedro Rivers. If this is allowed to continue, this can and will destroy or significantly diminish federal and tribal reserved rights to those streams where they have reserved surface flow rights.

To protect those reserved federal surface flow rights it is essential that downstream pumping which significantly diminishes those rights be located, prioritized and

the amount of diminishment established to provide a basis for later enforcement of whatever priority of reserved federal rights there is. The fact that under Arizona case law, surface flow appropriators have no right to protection against upstream groundwater pumpers does not diminish the right of holders of federal reserved surface water rights from protection against such diminishment under *Cappaert v. United States, supra.* This Court's jurisdiction under our adjudication statues [sic] and the "McCarran" Amendment extend to such rights, as they are rights under "federal law".

In the opinion of this Court, the same rationale applies to the rights of dedicated federal lands where the single or major source to supply water to meet that purpose or fulfill a P.I.A. requirement is groundwater. If that groundwater was available on the date of the establishment of the national forest, park, monument or reservation and it is now not reasonably available because others off the reservation have diminished the reservation's ground water resources by their pumping, there is no basis to apply any other rationale than that found in *Cappaert v. United States, supra.* Again, the court should structure any judgment or order to minimize damages and/or impact on innocent users.

Because each sub-watershed is to an extent different and the downstream location of federal and Indian reserved surface water rights is different as compared to where upstream ground water pumpers are located, it may be necessary to hold factual and evidentiary hearings to establish the parameters of what constitutes a significant diminishment of the water rights within such time frame as would affect the United States [sic] ability

to carry out the primary purpose of the reservation or federally reserved lands.

Conclusion

Based on all of the above the Court must conclude that the cities' motion to exclude all groundwater wells must be denied and it is so ordered. Dealing next with the specific issues of the 1/19/88 order the court answers them as follows.

1. Is groundwater included within the phrase "river system and source" as it is used in A.R.S. § [sic] 45-141 and 45-251(B) and if so. [sic] to what extent is it included?

Answer. Groundwater is included in the appropriable water only when it meets the criteria of "sub-surface flow" as defined above or when the water source is for a claim based on federal law.

2. Is groundwater included within the phrase "water subject to claims based upon federal law "as it is used in A.R.S. § 45-251?

Answer. Yes.

3. Assuming that percolating groundwater is not included in the definitions of A.R.S. §§ 45-141 and 45-251(B), does a McCarran Amendment Adjudication, require that percolating groundwater be included and if so, how can this be done under Arizona law?

Answer. No, the McCarran Amendment doesn't require it, but federal law requires its inclusion where the claim is based on federal reserved rights.

4. If the answer to Issue No. 3 is in the affirmative, does the adjudication have to include only claims under federal law or must state law claims as to percolating groundwater also have to be included?

Answer. No. However cataloging all such percolating groundwater claims will serve a significant purpose and should be done. It is not required.

5. If the answer to Issue No. 3 is in the affirmative, does the adjudicatory process extended to a determination of rights to percolating groundwater which is normally in this state subject to a "reasonable use" standard to the same extent as it does to surface water which normally is subject to "prior appropriation" standard?

Answer. No, where the use of groundwater affects only state rights. Yes, where the use of groundwater affects federal rights.

6. Does the "Winters" Doctrine of Federal Reserved Rights apply to percolating groundwater under and/or outside of a federal reservation, how does it apply and does it apply only to the reduction of surface water resources and/or groundwater resources beneath the federal reservation?

Answer. Yes. See above.

7. If percolating groundwater in the watershed of the Gila River System is subject to the jurisdiction of this adjudication, what is the affect of the Groundwater Management Act of 1980?

Answer. Technically there should be no effect as rights under the Groundwater Management Act are neither appropriative rights under A.R.S. § 45-141 or rights

claimed under federal law. Practically however, rights of groundwater users in A.M.A.s and I.N.A.S [sic] would have to be considered when and if a court decides how to satisfy federal reserved rights and how to apportion the same between surface water and groundwater.

8. Are there technical and/or procedural problems in determining, prioritizing and/or apportioning groundwater rights which present problems of such magnitude in the reliability of the data for such a determination that an attempt to prioritize ground water could violate due process requirements?

Answer. None sufficient to preclude the adjudication.

Having ruled on the legal issues before it from the motion and the eight questions before the court, the Court will now move to the area of its instruction to the Department of Water Resources for its Hydrographic Survey Reports.

First, these reports should include all claims of surface rights and claims where the water being used is subsurface flow under the criteria previously described. These rights are to be cataloged, prioritized and entitlements assigned thereto by indicating the nature, extent and relative priority thereto, all as required by A.R.S. § 45-256. All other groundwater sources, not involving federal claims, shall be cataloged and their data determined as previously indicated.

When dealing with a claim made under federal law, the same procedure should be followed for those claims where the federal claim is for a diversion and use which is in physical use at this time. Where the claim is for a

federal reserved right and there is no present physical use D.W.R. shall also:

a. determine all sources of water reasonably available to meet the claim presently [sic]

b. determine the limits and characteristics of availability on the date as to which priority is established [sic]

c. determine [sic] the entitlement on the basis of a reasonable assessment of the reservations [sic] P.I.A. or, if not an Indian reservation then the property's primary purpose.

d. In determining a prioritization of such claimed federal reserved right, it will be necessary to determine all stream users or diversions of either surface water or groundwater which significantly affect those sources reasonably available on, at or near the federal parcel which would be available to fulfill the determined entitlement.

e. To the extent possible, exclude each domestic and stock water well and irrigation well irrigating no more than 2 acres, where D.W.R. determines that such wells [sic] diversions have so little effect as to be significantly unmeasurable.

Previously, in the third section of this order, this court discussed the federal claim of what comprehensiveness a "McCarran" Act adjudication required and concluded that what the federal claimants argued for was beyond what the law required. However, all case law and legislative history on the "McCarran" amendment indicates a preference for adjudications in state court because they can be more "comprehensive". While federal courts

can and often handle such, most adjudications are in state court because of an ability to be more comprehensive. To that extent, a "McCarran" Act adjudication does require some degree of comprehensiveness. In the opinion of this court, this adjudication under the parameters above outlined will meet that test.

DATED this 9 day of Sept. 1988

/s/ Stanley Z. Goodfarb
Judge

SUPERIOR COURT OF ARIZONA
MARICOPA COUNTY

CC04 33390 — Code
9/9/88 — Date

HON. STANLEY Z. GOODFARB
Judge/Commissioner/Pro Tem

E. Schneider
Deputy

NO. W-1, W-2, W-3, W-4

In Re the General Adjudication
of All Rights to the Water in the
Gila River System and Source

This Court's order with reference to the relationship of surface and groundwater covering the issues argued on May 20, 1988 was approved, settled and signed this date with copies sent to all attorneys on the approved mailing list herein.

The Court has received Motions to Intervene and Orders with reference of Mark J. and Colette Westervelt, Bruno and Jollyn A. Salamone, and Peggy M. Hitchcock. All of these Motions will be taken up at the Court's next meeting on Friday, September 30, 1988 at 1:30 p.m.

Further, the Court advises counsel that a program by the American Water Resources Section has been scheduled for Friday, October 28, 1988 at the Sheraton Pueblo Inn, Tucson, Arizona. The court has been invited to be a speaker thereto. The Court notes from a preliminary program send [sic] to it that a number of attorneys in this case are also scheduled to be speakers at this meeting. Therefore, rather than have our October meeting on Friday, October 28, the Court will schedule a meeting for

1:30 p.m. on Thursday, October 27, 1988 so that any and all counsel who represent the claimants or DWR may attend the Tuscon meeting on the adjudication of water rights.

Pursuant to stipulation, and good cause appearing.

IT IS ORDERED that Jennele M. Morris be allowed to withdraw as counsel of record for the Cities of Mesa, Chandler, Tempe, Goodyear, Casa Grande, Avondale and Prescott, and that James P. Watts, of the law firm of Bill Stephens & Associates, P.C., be substituted as counsel of record for those Cities.

IT IS FURTHER ORDERED that James P. Watts is appointed to the Steering Committee previously established in this proceeding pursuant to Paragraph 10 of Pre-trial Order No. 1, all in accordance with the Order signed by the Court on August 31, 1988.

APPENDIX E

SUPERIOR COURT OF ARIZONA
MARICOPA COUNTY

RC11-33390
Code

1-19-88
Date

JUDGE STANLEY Z. GOODFARB
Judge/Commissioner/Pro Tem

E. Jackson
Deputy

NO. W-1, W-2, W-3, W-4

General Adjudication

As indicated at our December 17, 1987 hearing, John S. Schaper indicated an intention to offer his resignation as chairman of this Court's steering committee. This has been done and reluctantly accepted by this Court. A copy of this Court's letter of acceptance and statement of its appreciation for his work dated January 6, 1988 is attached and made a permanent part of the record of this case.

A formal order substituting Norman J. Davis for Alicia F. Tocco as attorney for the St. John's Irrigation District is filed this date.

This Court has had submitted to it a draft of a proposed pretrial discovery order and a proposed identification system which has been prepared by this Court's steering committee. Copies have been submitted to all counsel. The Court will take up the approval or modification of the order at the meeting on Friday, February 26, 1988 at 1:30 p.m. Any comments by counsel regarding the

orders shall be filed by 5:00 p.m. on Wednesday, February 17, 1988.

Pursuant to this Court's order at its November 20, 1987 hearing and the hearing on December 17, 1987, this Court has received the filed lists of issues which a number of parties submitted which they believe should be included in the question of the Ground Water and Surface Water relationship, all as raised by the Motion for Summary Judgment filed by a number of cities to exclude ground water from this adjudication. The Court has also considered the comments made by counsel at our hearing on December 17, 1987. As the Court said then, it has found in many of the lists submitted similar issues raised and in some there was submitted question [sic] of such complexity that a substantial factual hearing would be needed to provide a data base from which to start answering such questions. Such submitted issues have been discarded.

However, after attempting to distill all submissions to issues which can be decided as matters of law and after considering the evidence taken at our hearing on the issue from October 19 to the 23rd, 1987, the Court finds that in addition to the issues raised in the cities' motion, the Court will consider the following issues which it believes are related to the ground water relationship issues of this case.

1. Is ground water included within the phrase "river system and source" as it is used in A.R.S. § 45-141 and 45-251(B), and if so, to what extent is it included?

2. Is ground water included within the phrase "water subject to claims based on federal law" as it is used in A.R.S. § 45-251?

3. Assuming that percolating ground water is not included in the definitions of A.R.S. § [sic] 45-141 and 45-251(B), does a McCarran Amendment Adjudication, [sic] require that percolating ground water be included and if so, how can this be done under Arizona law?

4. If the answer to Issue No. 3 is in the affirmative, does the adjudication have to include only claims under federal law or must state law claims as to percolating ground water also have to be included?

5. If the answer to Issue No. 3 is in the affirmative, does the adjudicatory process extended to a determination of rights to percolating ground water which is normally in this state subject to a "reasonable use" standard to the same extent as it does to surface water which normally is subject to "prior appropriation" standard?

6. Does the "Winters" Doctrine of Federal Reserved Rights apply to percolating ground water under and/or outside of a federal reservation, how does it apply and does it apply only to the reduction of surface water resources and/or ground water resources beneath the federal reservation?

7. If percolating ground water in the watershed of the Gila River System is subject to the jurisdiction of this adjudication, what is the affect of the Ground Water Management Act of 1980?

8. Are there technical and/or procedural problems in determining, prioritizing and/or apportioning ground

water rights which present problems of such magnitude in the reliability of the data for such a determination that an attempt to prioritize ground water could violate due process requirements?

The Court will allow responses to the cities' Motion for Summary Judgment and a discussion of the above issues to be filed within 60 days of the date of this order and replies to these responses to be filed thereafter within 30 days. No parties [sic] response and reply shall exceed 30 pages for both documents but the allocation between the two shall be made by counsel. The Court will hear argument on the issue at its May hearing on May 20, 1988 at 1:30 p.m. While the 27th is the last Friday of the month, the 30th is Memorial Day and some counsel might have contrary plans for that period.

Copies of this order is [sic] mailed to all counsel on the Court's approved mailing list of December 14, 1987 which was attached to December 17, 1987 minutes.

DOCKETED

JAN 26 1988

1062

APPENDIX F

SUPERIOR COURT OF ARIZONA
MARICOPA COUNTY

RC11-33390
Code

11-20-87
Date

JUDGE STANLEY Z. GOODFARB
Judge or Commissioner

D. Glab
Deputy

NO. W-1, W-2, W-3, W-4

General Adjudication

Continued

1:41 p.m. The November meeting begins with the following persons present: Duane Wyles, Riney Salmon, John Weldon, G.R. Carlock, Sheryl Sweaney, Jennele Morris, Joe Sparks, Margaret Vick, Patrick Barry, Joe Clifford, Doug C. Nelson, Alicia F. Tocco, W. Storey, Rory C. Hays, Bill Warskow, Jim Mitchell, John Schaper, Robert Hoffman, Tamara Huddleston, Tim Luke, Clay Dozer, Sandra Lee, Don W. Young, Mary Lu Moore, Dudley Welker, T.J. Harrision, Frederic Beeson, Robin Barnes, B.M. Apker, J.W. Johnson, Carlos Ronstadt, Marilyn Cage, Barbara Goldberg, Jim Callahan, Judith Dworkin, Sharen Meade, William Sullivan, Norman J. Davis, Jeff Tremly, George A. Schade, Jr, Flauviuer Carovetta, Karen Perry and Simpson Cox.

Court reporter, Terry Louis is present.

The Motion to Intervene of Tom and Evelyn Clark and Steven and Sandy Sutherland is discussed and is granted and signed by the Court.

The Motion to Intervene of SunCor Development partners is discussed and granted.

The Motion of B.C. Bass is discussed and granted and the order is signed by the Court.

After a discussion of the available dates, it is agreed that the December meeting will be held on Thursday, December 17, 1987 at 1:30 p.m., as this Court would not be available on Friday, December 18 and many counsel had other commitments on December 21st to the 24th.

The Court raises the issue of the volume of the file which relates to mailing lists. A discussion is held to reduce this volume and unnecessary work as to such lists. The Court agrees that the mailing list prepared by its clerk and attached to the minutes of each monthly meeting shall constitute the official list until changed. A certificate or statement attached to any document filed which states mailing was made to all on the official list shall be sufficient compliance for mailing. A list of all those mailed to will not be necessary. Pretrial Order #1 is amended and modified to allow such.

The Court raises the issue of the appointment of a Master by the Supreme Court and its hearing on the issue on January 7, 1988 at 9:30 a.m. D.W.R. is ordered to file with the Supreme Court its beliefs on the issues needed to be considered in the selection process. The Court also advises that it will make its own beliefs known in whatever manner the Supreme Court desires.

The Court notes it has received a report from the Steering Committee on the issue of "New Uses" of water subject to this jurisdiction, that is uses which became

effective after the closing of the date for Statements of Claim in a particular sub watershed. Any and all parties, including D.W.R., may comment on this report by 5:00 p.m. on December 8, 1987 and the Court will take up the matter at its December hearing.

A discussion is opened by the Court on the decision which the Court must make on the Ground Water and Surface Water "Interrelationship" which was the subject of the October 19th to 23rd, 1987 hearing. The Court then brought up the motion filed by numerous cities to exclude ground water from this adjudication. The Court advises it believes it appropriate to expand the citie's [sic] motion to the entire issue of the Ground Water and Surface Water Relationship, including whether or not the "Winters Doctrine" applies to ground water. It is agreed that all parties may submit a list of what issues should be included in the determination to be made, provided that no list shall exceed ten pages. The list shall also be submitted no later than 5:00 p.m. on December 8, 1987.

The Court will take up the scope of issues to be considered at its December 17, 1987 hearing. Upon its determination of the issues to be considered, all parties shall have 60 days to brief the same and 30 days thereafter to respond to the others briefs submitted. D.W.R. is specifically ordered to brief the issues ordered and respond, particularly with regards to the matters of what legal authority this Court has in this jurisdiction to act, in what ways different decisions would impact D.W.R.'s ability to provide accurate and correct information and affects upon administration of any decree arrived upon,

as well as what other issues D.W.R. as this Court's technical and administrative adviser D.W.R. [sic] believes must be considered for this adjudicative process to be meaningful.

The Court advises that after the above matters are decided, the Court in the future must begin looking at the shape, format and areas of decision which this Court's final decree should contain, so the process of this adjudication can be directed to proceed to achievement of that goal. The Court expresses the opinion that unless the process becomes goal oriented, the process will not expeditiously achieve what this adjudication needs to do.

Finally, the Court takes up the matter of the Third Set of Issues submitted by the Steering Committee and all the comments submitted thereto. All commenting parties are premitted [sic] oral statements. They are taken under advisement, but the Court requests an administrative response by D.W.R. to each comment where appropriate in twenty days and an additional ten days [sic] reply by the commentator thereafter if it desires. The Court will thereafter decide the same.

3:00 p.m. The meeting concludes.

Later: the Court having failed to take up the Motion to Intervene of Boral Concrete Products, it is ordered granting the same and order is signed.

William Sullivan of Martinez & Curtis, P.C. has been left off of the mailing list for a number of months through a clerical error. His name is now replaced on the mailing list.

IT IS ORDERED substituting the law firm of Larson, Soto & Arana as counsel for the City of Nogales in the above matter, all in accordance with the Order signed by the Court November 23, 1987.

APPENDIX G

Arizona's Principal Aquifers Map

Salt River Valley Water Users' Assoc., et al.
v. United States, et al.

Arizona's Principal Aquifers

Principal Aquifers[1]

[1] U.S. Geological Survey, July 1, 1998. *Principal Aquifers of the 48 Contiguous United States.*

Supplement to NATIONAL GEOGRAPHIC, October 1996

FEDERAL LANDS
In the Fifty States

Produced by the Cartographic Division
NATIONAL GEOGRAPHIC SOCIETY
GILBERT M. GROSVENOR, CHAIRMAN
REG MURPHY, PRESIDENT AND CEO
WILLIAM L. ALLEN, EDITOR, NATIONAL GEOGRAPHIC MAGAZINE
ALLEN CARROLL, DIRECTOR OF CARTOGRAPHY
JOHN F. SHUPE, CHIEF CARTOGRAPHER
Washington, D.C., October 1996

Albers Conic Equal-Area Projection,
Standard Parallels 29°30' and 45°30'
SCALE 1:6,766,000 or 1 INCH = 107 MILES
0 50 100 150 200 STATUTE MILES
0 50 100 150 200 KILOMETERS

Forest Service

● National forest: Covering almost 200 million acres, the country's 155 national forests make up about 25 percent of public lands, mostly in the mountains of the West and Alaska. Long guided by the concept of multiple use for sustained yield, the Forest Service seeks a sometimes controversial balance among competing demands: logging, grazing, mining, watershed protection, and recreation. Recent policies focus on managing whole ecosystems.

○ National grassland: Seventeen of the twenty national grasslands are in the western Great Plains, from Texas to North Dakota, preserving four million acres.

National Oceanic and Atmospheric Administration

● National marine sanctuary: Established following the Santa Barbara, California, oil spill of 1969, national marine sanctuaries balance use between healthy ecosystems and coastal economies. The 12 sites protect kelp forests, coral reefs, and open ocean habitats.

● National estuarine research reserve: Twenty-one reserves on state-owned lands provide natural laboratories and classrooms for research and management of estuaries. Habitats include salt marshes, mangrove forests, and sandy beaches.

● Military reservation and installation: The 27 million acres of military land, found mainly in the South and West, are home to more than 220 threatened or endangered species and contain 100,000 archaeological sites.

● Research facility or other site: DOE's 50 major sites, totaling 2.4 million acres, range from nuclear reactors and R and D labs to oil reserves and cleanup sites. The larger sites are in the West, where some grazing is permitted as well as limited public access.

Bureau of Indian Affairs

○ Indian reservation: The agency acts as trustee of Indian-owned lands amounting to 55 million acres, or 7 percent of the total territory under federal stewardship. The 300 reservations—home to more than 500 tribes—are governed by elected leaders who determine activities on their lands, which may include public camping, hunting, and fishing, as well as gambling at casinos.

Bureau of Land Management

○ BLM land: The bureau oversees some 270 million acres, about one-eighth of the country's land surface. BLM also manages the mineral rights underlying 570 million acres. Founded in 1946 to manage public lands for multiple uses while protecting the long-term health of the land, BLM oversees more acreage than any other federal agency.

U.S. Fish and Wildlife Service

● National wildlife refuge: A network of more than 500 refuges, at least one in every state, provides habitat for migratory birds, big game, and endangered species of all kinds. The system's 90 million-plus acres include some private lands set aside as easement refuges. Although refuges may be closed seasonally to protect nesting, most are open for activities ranging from nature observation to hunting and fishing.

National Park Service

● National park or other site: With some 83 million acres, the park system supervises 11 percent of public lands. National parks, which number 54 and cover more than 51 million acres, offer an increasingly urban population the joys of hiking, camping, and boating in natural settings. National preserves, covering almost 24 million acres, protect natural resources while allowing hunting, fishing, and the extraction of fuels and minerals. The park system's 369 sites also include lakeshores, seashores, and monuments that preserve cultural and historical sites. Alaska contains more than half the total acreage.

○ National recreation area: The first recreation area, at Lake Mead, was created in 1936 when the Hoover Dam impounded the Colorado River. Traditionally composed of areas surrounding reservoirs, the 38 sites now include other open spaces near urban centers. The Forest Service manages 19 areas, the Park Service 18 areas, and BLM one area.

National wild and scenic river: The Wild and Scenic Rivers Act of 1968 established this network to protect free-flowing rivers. Begun with eight rivers totaling 772 miles, the system now contains 150 stretches of river for a total of 10,700 miles.

◊ Wilderness area: In 1964 Congress passed the Wilderness Act, establishing areas "where the earth and its community of life are untrammeled by man, where man himself is a visitor who does not remain." Four agencies administer 630 wilderness areas, encompassing 102 million acres: the Park Service (42 percent), Forest Service (33 percent), Fish and Wildlife Service (20 percent), and BLM (5 percent).

National scenic trail: The National Trails System Act of 1968 established trails in both urban and rural settings for people of all skills and physical abilities. The system, which began with the Appalachian and the Pacific Crest Trails, now includes six other continuous protected corridors.

○ ◊ Federal area of 25,000 acres or less.

Parcels of nonfederal land too small to distinguish at the scale of this map are included in the shaded federally managed areas.

Fire and Ice

Crushed more than half of Oregon, fateful rock envelops dense forest, desert heathland, and the deepest lake in the U.S., set in a caldera at Crater Lake National Park. Another volcanic pit public land, Mount Rainier in Washington, is covered by glaciers.

National Forests

Traditionally dedicated to resource extraction, such as logging or mining, national forests are now popular destinations for outdoor recreation. Making up two-thirds of Idaho, federal lands include Nez Perce National Forest, a rugged region of peaks and canyons. Federal lands blanket almost a third of Montana, including the more than two million acres of Flathead National Forest, home to grizzlies, wolves, and falcons—and renowned for camping and big game hunting.

The Central Flyway

Refuges scattered from North Dakota to Texas encompass prairie potholes, marshes, and lakes—important waterfowl breeding grounds. At J. Clark Salyer refuge in North Dakota extensive marsh and grasslands shelter more than 250 bird species. At Aransas refuge in Texas some 150 whooping cranes still winter on ancestral grounds.

Water and Woods

The Great Lakes set a shimmering stage for federal holdings. Largest island in Lake Superior, Isle Royale is known for its wolves and moose. Boundary Waters Canoe Area Wilderness is the most heavily used wilderness area in the U.S. The upper St. Croix is one of the last unspoiled rivers near a large population center. The first national lakeshore, Pictured Rocks on Lake Superior, gets its name from colorful sandstone cliffs.

BLM Lands

Federal stewardship accounts for 63 percent of Nevada—the highest proportion of any state. Most of that land is managed by the Bureau of Land Management. California's BLM lands, alone embracing 14.3 million acres, offer activities ranging from camping to rock climbing on terrain that rises from desert lowlands to mountain peaks.

Indian Lands

Governed by elected tribal leaders and administered by federal authorities, reservations offer the public many recreational opportunities. The 16.3-million-acre Navajo Reservation features a 17-mile drive among the rock spires at Monument Valley Navajo Tribal Park. On the 1.6-million-acre Fort Apache Reservation, White Mountain Apache run a major alpine ski and winter sports resort.

Caverns and Desert

Covering one-third of the state, New Mexico's federal lands evoke other worlds. Carlsbad Caverns is among the world's deepest and most ornate labyrinths. White Sands National Monument contains the world's largest field of gypsum dunes. The presence of generations beyond memory is evoked in Aztec Ruins, Bandelier, Gila Cliff Dwellings, and other monuments.

Seacoasts and Big Cities

Mountain and sea meet at Maine's Acadia National Park, established in 1919, the first east of the Mississippi. Cape Cod National Seashore, cobbled together through purchase of private lands, links 40 miles of beaches, sand dunes, and salt marshes. A new concept for the park system in 1972, Gateway National Recreation Area offers beaches, trails, and campsites to millions of urban dwellers in New York and New Jersey.

Appalachian Range

Summit of the southern Appalachian highlands, Great Smoky Mountains National Park—with peaks over 5,000 feet—preserves the world's finest remaining examples of temperate deciduous forest. More than 500 miles of trails lace the hardwood forests of Virginia's Shenandoah National Park, including a portion of the Appalachian Trail.

River of Grass

Part of a vast but vulnerable ecosystem, Everglades National Park is perhaps the most threatened of all U.S. parks. Efforts are under way to restore a more natural flow through this watery world of saw grass prairie, hardwood hammock, and mangrove forest. It is home to more than 300 bird species, including the rare and colorful roseate spoonbill, as well as the endangered manatee and Florida panther. Big Cypress National Preserve supplies fresh water to the Everglades.

Last Great Wilderness

Rich in diversity, Alaska's federal lands cover some 257 million acres—more than one-third of the national total. From Denali, or Mount McKinley—the continent's highest peak—to glacier-carved fjords, Alaska's rugged yet fragile wilderness shelters a wealth of wildlife, from shorebirds and salmon to caribou, moose, and bear.

ALASKA
SCALE 1:30,375,000
1 INCH = 500 MILES

PRINCIPAL HAWAIIAN ISLANDS

SCALE 1:4,388,000
1 INCH = 100 MILES

Mountains and Coast

Hawaii's federal domain embraces Haleakala National Park, known for its immense crater and such rare plants as the silversword, found nowhere else on earth. Hawaii Volcanoes National Park has two of the world's most active volcanoes.

To Use or To Save?

The federal domain covers a third of the nation, more than 700 million acres, a public trust unmatched in the world. It might have been entirely lost had the dispersal policy of the 19th century continued. Until the 1890s the federal government aggressively rewarded enterprise or raised revenue by giving away or selling much of the land: to homesteaders, veterans, railroads, the states—nearly a billion acres in all.

In 1901 the conservation movement gained a strong ally in President Theodore Roosevelt. Inspired by such people as naturalist John Muir, who took him camping in the Yosemite Valley of California, Roosevelt spurred citizens to preserve lands "for their children and their children's children forever, with their majestic beauty all unmarred." Roosevelt increased national forests by 150 million acres and established five national parks, more than 50 wildlife refuges, and 18 national monuments, including the Grand Canyon.

Dispersal versus preservation: These two sides still frame the increasingly heated debate over the federal lands. How can the common legacy be best managed for the greatest good to the greatest number over the longest time?

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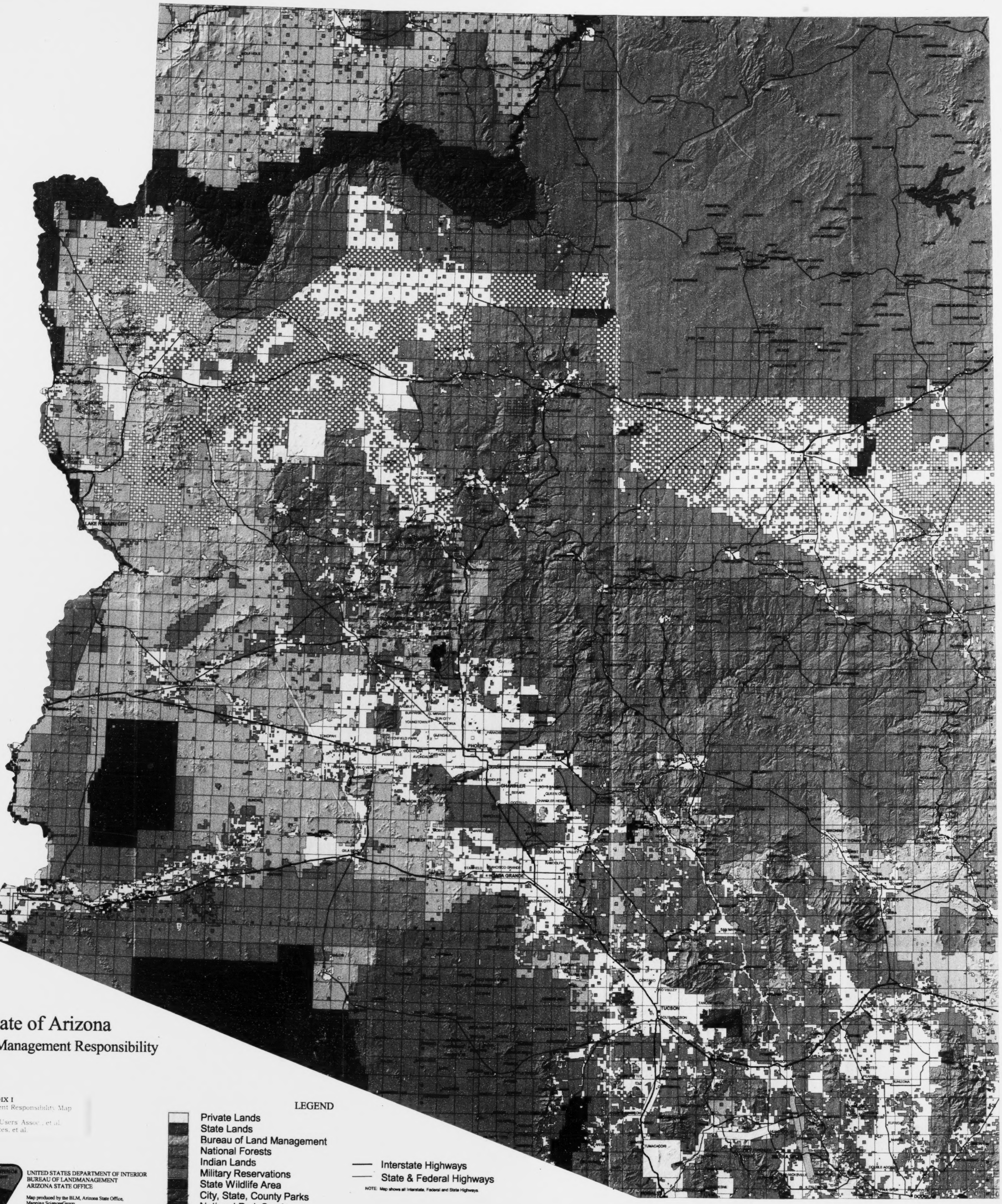
ARIZONA SURFACE MANAGEMENT RESPONSIBILITY



State of Arizona
Surface Management Responsibility

APPENDIX I
Arizona Surface Management Responsibility Map

Salt River Valley Water Users' Assoc., et al.
v. United States, et al.

UNITED STATES DEPARTMENT OF INTERIOR
BUREAU OF LANDMANAGEMENT
ARIZONA STATE OFFICE

Map produced by the BLM, Arizona State Office,
Mapping SciencesGroup.

Land status updated as of 1994.

2nd Preliminary Edition
May 19, 1998

LEGEND

- Private Lands
- State Lands
- Bureau of Land Management
- National Forests
- Indian Lands
- Military Reservations
- State Wildlife Area
- City, State, County Parks
- National Park Service
- National Wildlife Refuges
- County Lands
- Bureau of Reclamation

- Interstate Highways
- State & Federal Highways

NOTE: Map shows all Interstate, Federal and State Highways.

SCALE 1:1,000,000

10 0 10 20 30 40 50 Miles
10 0 10 20 30 40 50 60 70 Kilometers

N

Cooperative Land Status Project

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Arizona's Principal Aquifers and Land Ownership

- Principal Aquifers[1]
- Federal Reservations[2]
- Other Federal Lands[2]
- State Land[2]
- Private Land[2]

[1] U.S. Geological Survey, July 1, 1998.
Principal Aquifers of the 48 Contiguous United States.

[2] Arizona State Land Department, Arizona Land Resource Information System, 1997.
Land (digital file).

APPENDIX J
Arizona's Principal Aquifers & Land Ownership Map

Salt River Valley Water Users' Assoc., et al.
v. United States, et al.